THE

MEDICAL AND SURGICAL REPORTER.

No. 1258.] PHILADELPHIA, APRIL 9, 1881. [Vol. XLIV.—No. 15.

Original Department.

Lecture.

THE PATHOLOGY OF ALBUMINURIA.

Delivered at the Paris Faculty of Medicine,

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Translated for the Medical and Surgical Reporter.

Gentlemen:—At our last lecture I briefly enumerated the conditions, normal or pathologic, under which albumen is found to be present in the urine; and in alluding to the temporary albuminuria sometimes observed in normal conditions of the system, a subject which has attracted particular attention on the part of physiologists during late years, I recalled to you the observations of M. Leube and Edlefsen regarding the transitory albuminuria observed in overfatigued soldiers.

This variety of albuminuria present in the normal condition was also brought into notice by Prof. Semmola, of Naples, who observed it in stevedores, miners, etc.

The fact is sufficiently interesting not to be lost to view. I then endeavored to establish a parallel between the varieties of albumen found in the blood and those found in the urine in albuminuria. The conclusion arrived at from this comparison you have not forgotten; it is that all the varieties of albumen isolated by means of chemical analysis from the urine of patients in albuminuria are found with the same chemical and physical characters in the serum of normally constituted blood. This important fact renders the following proposition very probable, with a few very rare exceptions: *all the varieties of albumen found in the urine, and which necessarily originate from the blood, are in reality nothing more than the different forms of albumen found in this fluid in the normal state;* and the kidney which eliminates them induces no appreciable physico-chemical modification in their structure.

We shall see to what point this proposition, founded on physico-chemical condition, is justified by physiological and chemical facts. The first question which presents itself for solution is the following: In what part of the urinary apparatus takes place the secretion of the diverse varieties of albumen found in the urine? According to the most recent works this secretion is effected in the glomerules, to the exclusion of the tubuli contorti (canaux du labyrinthe).

I brought to your notice, the other day, the fact that, contrary to what happens for the albumen of the blood serum, that of white of egg, which is, for that matter, totally foreign to the constitution of the blood, passes in the urine, when ingested in sufficient quantity or when injected into the veins of an animal. This is not, properly speaking, a pathological fact, for these animals do not suffer, nor does the human subject, from this albuminuria provoked experimentally.

I recall to your memory that in such a case the albumen of white of egg may be recognized as such in the urine, because it retains in this fluid its proper physico-chemical characters, which distinguish it from the albumen of the serum. It is then necessary to determine if this albumen of the egg, eliminated from the blood, passes in effect, as we have declared, by the glomerules.

Here is an experiment, due to M. Nussbaum, which demonstrates such to be the case. If a certain quantity of white of egg is injected into the general circulation in the frog, it passes in the urine, just as in the mammifer. But if the renal artery be tied previous to the injection, under these new conditions albumen no longer passes.

But it may be proved that at this moment the epithelium of the tubuli enjoys all its vital properties, for if an intravenous injection of a solution of urea be made in this animal with the emulgent artery tied, this substance excreted by the tubuli carries off with it a certain proportion of water. So that, notwithstanding the suppression of the functional activity of the glomeruli, urea injected into the general circulation may be found in the bladder.

What has been said of white of egg may be said also of the peptones, which also, according to M. Nussbaum, pass in the urine in the normal condition in the frog and are s creted by the glomerule.

The same experiment of M. Nussbaum slightly modified may be applied to the solution of another problem. That is, when it is no longer the white of egg but the albumen of the blood serum which passes in the urine, that is, when we have the conditions of common albuminuria in the human subject.

You have not forgotten the famous experiment of Overbeck, the temporary ligation of the renal artery. When the ligature has been left but a few minutes in place, the urinary secretion, at first suppressed, reappears after one-half or three quarters of an hour, when the ligature has been removed. The first urine which passes is scanty and albuminous. It is evident that this albumen originates from the blood, and it is necessary to seek in what part of the kidney this filtration takes place. This question also may be resolved by experimentation on the frog.

After ligating the renal artery, a certain quantity of urea is injected into the blood, which passes naturally by the bladder. But if the ligature be removed for the next four or five hours, the urine will contain albumen with the urea.

Contrary to what happens in mammifers, it is possible, in the frog, to determine with precision the point where the secretion of albumen takes place; and to demonstrate that this secretion is effected in the glomerule, without participation of the tubuli contorti, which, nevertheless perform their usual function in eliminating urea, notwithstanding the ligation of the artery.

We will, gentlemen, in human pathology, meet with more than one example serving to show this independence, which, in albuminuria, may exist between the performance of the functions of the glomeruli and those of the canaliculi contorti. As example of this independence of action, might be cited that form of albuminuria which might be styled cardiac albuminuria, and which supervenes when, through grave trouble in the action of the heart (asystole) pressure becomes lowered in the arterial system while it is, at least relatively, increased in the venous system. Under such conditions the urine is scanty, dark colored, having a specific gravity of 1.035 to 1.040 (consequently above the normal standard), and contains a certain proportion of albumen.

But the important fact is, that when the urine of twenty-four hours is collected, it is found that the proportion of urea and uric acid is at least at the normal standard. Thus, while the glomeruli perform their functions badly, and furnish the liquid constituents of the urine in but small proportion, although allowing the filtration of albumen, the tubuli perform their functions separately and eliminate urea and uric acid in the usual proportions.

Take notice that this last point is perfectly in conformity with the teachings of pathological anatomy in such a case. It is in effect perfectly established that in the primary phases of the development of albuminuria, when, however, the urine has long contained a certain proportion of albumen, the epithelial cells of the tubuli contorti do not present any apparent morphologic modification.

II. But for the present we will leave aside the consideration of cardiac albuminuria; we can return to it later. We will now take up the results of experiment.

The experiments of M. Nussbaum have one great disadvantage; they were made on the frog, and it may always be objected that they are not applicable to the human subject. I shall give you a summary of the results obtained by a method differing from that put in practice by M. Nussbaum. These results, less decisive than the preceding, offer, nevertheless, a special interest, for they concern the superior animals. I allude to the recent and almost simultaneous experiments of MM. Ribbert, Posner, and Litten, which are absolutely concordant.

When the experiment of Overbeck, the temporary ligation of the renal artery, is performed on the dog or rabbit, albuminuria is produced under the conditions with which you are acquainted.

If the kidney of an animal submitted to such

an experiment be suddenly torn from the abdomen and thrown immediately into boiling water, it is evident that the albumen at that moment traversing the kidney undergoes sudden coagulation, and is fixed in the point where it is secreted; and, in fact, it is found that the capsule of the glomerule, which, under normal conditions, is applied closely over the Malpighian body or tuft, is in this case separated therefrom by an amorphous, transparent, granular mass, which distends the capsule. This substance presents all the characters of albumen in the coagulated state.

At the same time it is found, particularly when the ligature has been long maintained in place, that the epithelium of the glomerule has undergone all the modifications described by Langhaus, and which this author considers as characterizing acute inflammation (thickening in the vicinity of the nucleus of the protoplasm of the cell, which in this case becomes permanent and forms an elevation in the cavity of the glomerule). Without doubt, a certain quantity of this amorphous material is always met with in the tubuli, but as the epithelium here is intact, there is every reason to suppose that it is by the glomerule the albumen first filtrated, and that it subsequently passed into the tubuli.

The same observations have been made in cases of albuminuria, artificially produced in animals, by injection of white of egg. In such cases it is also found that the albumen is secreted by the glomerule and not by the tubuli. Of course, it must be understood that counter experiments have been made, proving that in the normal state in men and animals, when there is no albuminuria, this coagulum is never found in the capsule.

This is, it must be remarked, a fact of primary importance, because it overthrows definitively the theory proposed by M. Wittich and Küss. You know that, according to these authors, in the conditions of normal secretion the urine filtrated by the glomerule carries with it all the constituents of the blood-plasma, including albumen. But this albumen never appears in the urine, for it is taken up as it traverses the canaliculi by the epithelium which lines them.

I return to this theory, and insist on the criticisms made regarding it; for it has been applied by many authors to the interpretation of pathologic phenomena.

Albuminuria, according to certain theories we have mentioned, is almost always the result of a material alteration of the epithelial cells of the tubuli; and as can be readily understood, these altered cells become incapable of performing their functions, and permit the passage of the albumen secreted in the glomeruli, which consequently appears in the urine.

This theory is ingenious but is contradicted by many facts; and through this circumstance particularly, that in the normal state the anatomic method does not reveal the presence of albumen in the glomerule.

It results, gentlemen, from these same observations of MM. Ribbert, Posner and Litten, that in all pathological cases where albuminuria is present in man, whether transitory or durable, functional or accompanied by profound lesions of the kidneys, albumen has always been found in the cavity of a certain number of capsules.

The researches made recently by MM. Browicz and Cornil, on the alterations of the kidneys in animals poisoned by cantharides, may be considered in connection with the preceding observations.

In such a case there is acute inflammation, and the albumen which passes in the urine is accompanied by elements (leucocytes and hematies) which demonstrate the nature of the pathologic processes.

If the kidney is examined forty minutes only after the subcutaneous injection of cantharides, an albuminous exudation is already found in the cavity of the glomerule; and there is every reason to believe, after mature consideration of the facts, that it is at this point, that is in the glomerule, that this exudation takes place, appearing only secondarily in the tubuli.

Thus, gentlemen, as you see, in taking as basis the documents I have brought before you, we are led to establish in principle that it is always by way of the glomerule, and without participation on the part of the tubuli, that albumen is eliminated.

III. Fortified with the knowledge of the anatomical, physiological and pathological facts which we have collected in preceding studies, we can now take up, with some chance of arriving at a conclusion, a question which is difficult, complicated and obscure, viz.: the pathogenesis or pathological conditions which induce albuminuria. The pathological conditions invoked by different authors to explain the passage of albumen in the urine may be, although numerous, considered under three principal headings:—

1. First it is said there is a primary alteration in the blood itself, of which albuminuria would be the immediate sequence. 2. Sometimes there is trouble in the general circulation or in that of the kidney. 3. There may be some direct ana-

tomical alteration in the epithelial elements of the renal gland.

To each of these groups corresponds a theory; certain eclectic authors, admitting the validity of all three, apply now one, now the other, according to the case, to the interpretation of the facts. But others, more exclusive, admit but one of these systems, and apply it to all cases. We will consider, one after the other, these diverse theories, and seek to determine up to what point they conform to the physiological facts we have been considering.

The first theory which presents itself is that of *hematogenous albuminuria.*

It was thus designated by M. Stokvis, in an important memoir entitled "Experimental Researches on the Pathogenetic Conditions of Albuminuria." (*Journal de Méd. de Bruxelles*, 1867, vol. 44.) Unfortunately, I have but the time to mention the essential conclusion at which he arrives.

In this system of hematogenous albuminuria there is supposed to exist primarily an alteration of the blood, of which albuminuria is the immediate consequence. The existence of an alteration of the blood, consisting in the presence of an excessive quantity of water in this liquid (hydræmia, hypo-albuminose) was often invoked as a cause of albuminuria, particularly about twenty years since.

Certain very old experiments of Magendie, repeated by Mosler, were much relied on at this period. These experiments consisted in injecting into the blood of animals a certain quantity of water; almost always the urine of these animals became albuminous. The fact is so, but it received an erroneous interpretation.

The albuminous urine of these animals is tinged red; it contains blood globules generally, or at least the coloring principle of the blood, that is hæmoglobin. Two things may happen in these experiments, made in a very summary manner by the first observers: 1. A considerable quantity of water was injected and with rapidity. In such cases there was a sudden elevation in the arterial tension. Some of the vessels of the kidney suddenly distended, ruptured and allowed the blood to escape, thus provoking albuminuria.

2. Or the injection was made slowly, though in large quantity. In this case the globules become altered by the action of the water, and permit the escape of the hæmoglobin which was mixed with the serum. Or, this hæmoglobin is an albuminoid principle, which filtrates through the membranes with as much facility as the albumen of the egg. It is then nothing astonishing to have it pass in the urine subsequent to the dissolution of the red globules. When such is the case, it is not, properly speaking, albuminuria, but hæmatinuria, as Vogel called it; or, better, hæmoglobinuria, as it is styled at present. The urine in such a case is diversely colored; sometimes of a bright red tinge, it may be dark red or almost black. Coagulation is induced by heat and nitric acid, as when albumen of egg is present, but the precipitate is not dissolved by an excess of acid.

Hæmoglobin is, by this character, already distinguishable from ordinary albumen. Added to this, spectral analysis reveals in such urine the band peculiar to hæmoglobin.

In these experiments of injection of water, followed by hæmoglobinuria, the dilution of the blood is carried very far; and this liquid presents itself under conditions never observed in the human subject.

On the other hand, if in the animal water is injected in small quantity, in small proportions at a time, and with precaution, the urine never, according to the experiments of Stokvis and Westphal, contains either albumen or hæmoglobin.

It is very probable, then, that albuminuria, or better, hæmoglobinuria, through dilution of the blood, does not occur in the human subject; but I would say in passing, that it is frequently induced in man by other pathological conditions; thus in grave fevers, with a typhoid state of the system, with putridity, as the older physicians termed it; in dothienenteritis, scarlatina, pernicious jaundice, or again, in poisoning by sulphydric acid or arseniuretted hydrogen.

The study of hæmoglobinuria, long neglected, has been taken up again recently, particularly in Germany, and during the last ten years the medical journals frequently contain cases of this kind.

Communications.

ON THE USE OF THE OBSTETRICAL FORCEPS.

BY T. C. WALLACE, M.D.,
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A paper read before The Union Medical Association, at Eagle Bridge, N. Y.

(*Continued from page* 376.)

Let us look further. Every author I have named impresses upon us the importance, the imperative necessity, of supporting the perineum. Prof. Goodell strenuously urges us to leave the perineum unsupported, and quotes some of

the most eminent authors in France and Germany in support of this advice. In England, he says, West, Swayne, Graily Hewitt, Taylor, and Thompson, have long since discarded support to the perineum, as not only useless, but *positively injurious*. Prof. Taylor, of Bellevue, declares "that support to the perineum is unnecessary, and that as many lacerations occur in the practice of those who render support as in those who do not." Not only are we enjoined by eminent authorities carefully to support the perineum, and by others of equal eminence to let it alone, but of those who order its support, each has a different method. One advises a folded napkin to be applied by the hand. Another teaches this is nonsense, and that we must use the bare hand; still another directs us to hook a finger in the anus and pull the perineum forward. One insists that, on the score of delicacy, we must always scrupulously keep our patient covered with a sheet, forbidding us even to go the traditional "one eye on it." Another directs that the perineum be freely and fully exposed to view that the eye may detect the first symptom of laceration.

It is often asked, "When doctors disagree, who shall decide?" When our authorities thus disagree, how shall the doctors decide? I answer, each for himself, guided by the dictates of common sense and his own best judgment. For the benefit of those who dare do nothing that is not explicitly sanctioned by some authority, I propose to support any statement I may make, or any advice I may offer, by equally as good authorities as any I have named and rejected. I assert that whenever, in a vertex presentation, with no deformity of the pelvis existing, with the os uteri dilated, or *easily dilatable*, the head does not advance in proportion to the force of the pain, or the longer continuance of the labor endangers either the mother or child, or involves a long continuance of suffering to the mother, the time has arrived to resort to the forceps. Further, that its use is often proper to do away with the nervous excitement of the patient, and to relieve the harrowing anxiety of her friends; and still further, that its application is many times justifiable to save the time of the practitioner; for I can see no good reason why we should spend hours by the bedside of the parturient, to the detriment of other patients who urgently need our services, when it requires but the touch of skin to complete the labor. This may seem a bold assertion, but it is my opinion, on which I have acted for years, and with no cause for regret. I cannot agree with Meigs, that violent pains and extreme resistance contra-indicate the use of the forceps. They are even an indication for its use. If extra force is needed the arm of the practitioner can furnish it more cheaply than the womb of the woman. I must differ from Churchill, for I cannot think it my duty to sit idly by the bedside and suffer a woman to travail for hours, even if I am "fully satisfied" that nature will ultimately triumph.

With equal reason might I decline to give exit to suppuration with my bistoury, and thus relieve excruciating pain, provided I was "fully satisfied" that in time the pus would safely find its way to the surface. As to the rules given by Ramsbotham, and others, that we must suffer the woman to become febrile, or allow impaction to exist for a certain number of hours before we interfere, I utterly and totally repudiate them. In my opinion any practitioner who would be governed by such absurd rules had better cease feeling for the child's ears and direct his *tactus eruditus* to examining his own.

Hodge, in his quarto on obstetrics, after advising early resort to the forceps, says, "In giving this advice we will doubtless fall under the censure of those who direct their anathemas upon what they call meddlesome midwifery, which expression, although it may answer as a cause to the ignorant and rash, the author has always regarded as evidence that those who use it are ignorant alike of the resources of nature and those of science, and hence, trusting to nature until the dangers to the child and parent are so cumulative that artificial assistance is not only unavailing, but often accessory to a fatal termination. He who understands accurately the natural modes of delivering, and the resources of his science, may often enjoy the unspeakable pleasure of diminishing corporeal and mental suffering in many cases which might possibly, after much delay, have terminated without assistance, and very often of preserving lives which would otherwise have been sacrificed."

Regarding the dangers attributed to the forceps, I not only deny their existence, but assert that its judicious and early use is the surest way of arresting danger. As to its use causing fracture of the pelvic bones, separation of the symphysis, etc, I confidently state it would be impossible to produce such results. Equally impossible would it be to thrust a blade through the uterus or vagina. In Bedford's case of complete occlusion of the meatus urinarius, with vesico-vaginal fistula, etc., the injury doubtless resulted from the length of time the woman was in labor (three days) before delivery was effected. She

would have been all right had it not been for the delay. The trouble was not that the forceps was *used*, but because it was *not* used. The forceps is, indeed, a peculiarly innocent instrument; with its curved form and rounded edges it is almost incapable of mischief. It cannot cut, fracture, tear or scrape. Neither can it bruise the soft parts without the most stupid ignorance or criminal violence. Perineal lacerations are, in some cases of labor, unavoidable, but I do not consider them more apt, indeed not so apt, to occur in forceps delivery than in unaided labor. Most lacerations occur where with one supreme effort the head is suddenly ejected. With the forceps we have a more perfect control of the head, and by retarding its passage at such times, and especially by keeping it pressed closely against the pubes. we may often avert laceration. I am satisfied I have many times thus prevented threatened laceration. Hodge says, "A very large proportion of vesico-vaginal fistulæ met with result not from the *use* but from the *neglect* of the forceps." This observation is confirmed by the fact that few practitioners ever apply the forceps directly toward the bladder or rectum, but somewhere on the sides of the pelvis. Dr. Burns, of Glasgow, says, "it is erroneous to consider the forceps a painful or dangerous instrument, as it was for many years used clandestinely, and *without the knowledge of the patient.*" He says in cases of impacted head it is better to interfere too soon rather than to procrastinate, and he is supported in this advice by Hamilton, of Edinburgh, and Osiander, of Göttingen. Dr. Reeve, in a review in the *American Journal of the Medical Sciences*, says, in regard to the serious objection to operative interference with labor, that lesions may be produced by the unskillful use of instruments. We shall borrow Dr. Thorburn's reply, that we have no more right to debar the suffering woman from the advantages to be derived from the use of instruments, on the ground that they may be clumsily employed, than the surgeon has to counsel the utmost delay in hernia, because a bungler might wound the bowel.

But the truth is, authority is almost unanimous that it is the prolonged pressure of the child's head which produces sloughing of the maternal tissues and fistulæ, and *not* the use of instruments. This has been shown by Simpson, Beatty, Hodge, and numerous others. We may add to their testimony that of Baker Brown, who, before the British Medical Association, said, that of one hundred cases of lesion following labor, ninety per cent. were attributable to protracted labor. The idea that they were produced by the use of instruments is a farce and a bugbear. Joulin states that he availed himself of the ample experience of Jobert, for the solution of this question, and had access to an unedited manuscript containing the statistics of one hundred and fifty cases; the opinion of that eminent surgeon was, decidedly, that fistulæ are always the consequence of prolonged labor, and *never* result from the application of the forceps. In our country, out of two hundred and fifty cases given by Dr. Emmett, not more than three cases resulted from instrumental delivery, and these were cases of malpractice, and of no statistical value; all the rest were from prolonged labor. Now, if there be a question in medicine which may be considered settled, it surely is this. It was only reconsidered in this article because of the pertinacity with which the objection is advanced by those who are opposed to operative interference with labor, except as a dire necessity. Regarding danger to the child, Meigs says, "I think it almost out of the bounds of possibility to injure the fœtus with it, provided it be well adjusted and used with common discretion." Dr. Reeve, in the paper before quoted, says, "As the forceps has been neglected the use of the perforator has increased." This surely is a pregnant fact and should be admitted into the pleadings. Thus we have the well known table given by Simpson, which goes from Siebold, with one forceps delivery to every seven cases, and one craniotomy in 2093, to Collins, with one forceps delivery in 617 cases, and one craniotomy in 141. Collins carried reliance on nature to the extreme, and the results are patent. Yet this table does not give truly the other end of the scale. Fr. B. Osiander, during thirty years' administration of the Göttingen Lying in Asylum, used the forceps in every $2\frac{5}{10}$ cases; *yet he only used the perforator once in his life!*

Regarding the proper application of the instrument, the great majority of French, English, and American authors teach that the blades are invariably applied to the sides of the head. In my opinion, these teachings are wrong in theory, productive of evil consequences in practice, and often impossible of execution. The grand question in the use of the instrument is, whether its introduction shall be governed by the position of the head or by the shape of the obstetrical canal. Whether we shall consider the anatomy of the child, or the anatomy of the mother. Whether we shall regard the field in which our operation is to be performed, peculiar and determined in its shape, or pay attention solely to the position in which the object to be grasped happens to lie.

In my opinion, the blades should invariably be applied to the sides of the pelvis; their pelvic curve in accord with the curve of the pelvic canal; that the position of the head is not of the least importance, and cannot be advantageously, or in many cases, even innocently regarded. For what purpose is the pelvic curve given to the forceps? It is only a single direction this curve can fit, and it is impossible to accommodate it to any other direction. When an author directs us to place the forceps antero-posteriorly at the superior strait (as must be done if the blades are applied to the sides of the head), he directs us to execute an impossibility. In this advice to regard only the pelvis and disregard the position of the head, I am supported by many German authors, by Barnes, of London, and by Byford, of this country. Barnes says, "the position of the head may be disregarded. The pelvic curve of the blades indicates that these must be adapted to the curve of the sacrum, in order to reach the brim. They must, therefore, be passed in the transverse diameter of the pelvis; one blade will be in each ilium, and the head, *whatever its position to the pelvic* diameters, will be grasped between them." The universal force of this rule much simplifies and facilitates the use of the instrument.

Not only does it apply to the position of the head in relation to the pelvic diameters, but also to all stages of progress of the head, from that where it lies above the brim down to its passage at the outlet. Governed by the usual rules, I used the forceps but three times in the first ten years of my practice. A German physician then instructed me in this better way. Since then I have used it with increased frequency. I find that for the past five years of my practice I have used it in thirty per cent. of all the labors I have attended. During this twenty years, I have never done harm to any child nor inflicted injury upon any mother. I have never attended a woman in labor whom I have previously delivered with this instrument, but that she would not only ask, but earnestly entreat its use. Of the fifty-one and more different forceps which shall we select? I think there is little choice between them. Any one of them is good enough. It is about with them as it is with the many different mowing machines; every farmer thinks the one he has the best of all.

The only one I have ever owned is Davis's, and I am perfectly satisfied with it. I like it for the marked boldness of its pelvic curve, and because of its English lock.

I prefer that the patient lie on her back; the pelvis is then firmly fixed upon the bed, the operator has free access to and perfect control of his patient. If the head lays high in the pelvis, her hips should be brought completely to the edge of the bed, the thighs abducted and her feet supported by assistants. When the head is at the inferior strait this is unnecessary. Introduce first that blade which (when both are in position) will lie nearest the sacrum of the mother. It is the blade which the operator will take in his left hand and which will lie in the left side of the pelvis. With one or two fingers of the right hand, let the operator touch the head well back toward the maternal sacrum, taking this blade in his left hand, holding its handle obliquely over the right groin of the mother, he introduces its tips into the vulva and slides it along the vagina, guided by the fingers of his right, until it is engaged between the head and the maternal parts. As the point of the blade passes beyond the reach of his fingers, he must rely upon his anatomical knowledge for its further guidance. He must mentally see the head simply as an ovoid body lying in the obstetrical canal, and considering that it makes no difference in what diameters it is grasped, his whole aim must be to keep his blades against the sides of the pelvis. While gently sending his blade along he must bear in mind the curve of the utero-vaginal canal, and also the convexity of the fœtal head, and remember that his blade has both a pelvic and a cranial curve. While his blade follows the curve of the pelvis, it must follow it so exactly that the sides of the blade will be at the side of the pelvis, and its concave edge will lie behind the pubic bone. By rapidly (but not too rapidly) depressing the handle until it is brought into the mesial line, this double movement is readily accomplished. The other blade is now taken in the right hand, and similarly introduced. The application of the forceps in this way, so far from being a difficult matter, is exceedingly simple and easy. The blades glide into their proper places almost as if instinct with intelligence.

Introducing the instrument for the first time, one will perhaps be surprised at the depth to which it will penetrate, and may fear he has introduced it too far. This is impossible. The forceps should completely enclose the head; after passing the head its further progress will be arrested by the body of the child. Much difficulty is often experienced in working the forceps. Many and confusing directions are given by authors for effecting this purpose. Meigs says perhaps we can push a blade forward

or backward. Some recommend us to withdraw the blades and try again. Some to remove one blade and endeavor to use the other as a vectis, and perhaps a pain may force the head down enough, so that next time the blades will lock. But what if it shouldn't? Bedford says we shall often succeed by "judicious manipulation," which is truly explicit. In fact, the whole thing, as laid down in most of our text-books, is a sort of trusting-to-luck affair. None of these authors recommend the puzzled operator to *swear*. But neither do they forbid him from so doing. If any one thus situated should swear, let him direct his anathemas, not against the innocent blades, they are all right, but rather let him vent his expletives against his venerated authorities, who have given him such a plentiful lack of instruction in this, his dilemma.

Now I will give a simple and certain rule for locking the forceps, which will always succeed. Send the blades well home; push them along as far as they will go, as already explained; there must be no fear of introducing them too far; then crowd the handles well back against the perineum. The instrument is now fairly grasping the child's head, the axis of its pelvic curve accords with the curve of the pelvic canal, the blades lie at the sides of the pelvis, parallel to and symmetrical with each other, the handles drop on the same plane, and by approximating them they will necessarily lock.

We are given extreme caution against letting our forceps slip. Meigs directs that one finger be kept in approximation to the head, to detect the first sign of slipping. This caution is unnecessary. My forceps never have slipped, nor is it possible for a good instrument properly applied to slip off. A little reflection will convince any one that this assertion is correct. With the blades enclosing the head, as they should do, nearly or quite to the cervical region, for their tips to override the convexity of the cranium involves their separation for at least two inches; this necessitates an equal separation of the bulge of the blades, but these are against the sides of the pelvis and they cannot separate.

That forceps do slip I admit, but it is because the tip of the blade is not pushed beyond the bulge of the cranium. The instrument slips off, because it was never fairly put on. Shall we use our forceps as compressors, as levers, or as tractors? All authors teach that in this operation we should imitate nature as closely as possible, and yet many of them tell us to use our instruments as levers, by moving the handles from side to side. Bedford, expressly directs that the force be one-third extractive and two-thirds lateral. Is this an imitation of nature? Does nature expel a child in that zig-zag, see-saw manner? The true use of the forceps is as *tractors*. Compression should be exerted only so far as is necessary to fix the instrument firmly upon the head, so as to prevent any motion of the blades upon the scalp. The blades and the head must be, in fact, as one body; their movements must be simultaneous. The compressing force necessarily used in grasping the handles when extracting is all that is allowable. Traction must be made in accordance with the axis of the pelvic canal. During extraction let there be neither excitement nor hurry on the part of the operator. In imitation of nature let him have periods of rest as well as of action. If the pains are frequent enough, let him act in conjunction with the pains. If not frequent enough, he has them at his command, for as soon as he makes traction the uterus will promptly respond with a pain.

Gentlemen: The advice I have offered as to when we should resort to our forceps; the statements I have made as to its safety, and the directions I have given for its application and use, although directly at variance with the teachings of many eminent authors, are not only supported by authors of equal eminence, but what is far more to me, are sanctioned by my own judgment and confirmed by years of practical experience, and I earnestly hope they may commend themselves to your thoughtful consideration. Let me ask, as a favor to yourselves, that you give this subject earnest thought and practical applications. By so doing you will save for yourselves many an hour of precious time, spare your waiting patients many an anxious thought, rescue many a child that would otherwise perish, relieve many a woman from hours of unspeakable agony, and be afterwards the recipient of her heartfelt gratitude. If, by the hearing of this paper, any one who has hitherto looked upon the forceps with disfavor shall be induced to alter that opinion; any one who has previously regarded it as dangerous, shall hereafter consider it a safe and beneficent instrument; any one who has formerly dreaded its introduction as difficult, will now think its application simple and easy; in fine, if it shall in any degree tend to promote the more frequent use of this most valuable instrument, my object in writing it shall have been accomplished.

—Cider has been declared an intoxicating beverage, by the Connecticut legislature.

MEDICATED GELATINE IN THE TREATMENT OF NASAL CATARRH.

Read before the Philadelphia Laryngological Society,

BY DR. ISAAC BARTON,

Chief of the Throat Department, Jefferson College Hospital.

By this I mean the use of the so-called nasal bougie, which consists of a piece of moulded gelatine, about two or three inches in length, having a piece of string running through its entire length, and having a free quantity for the purpose of security. For use, the bougie is to be slightly coated with sweet oil, and gradually inserted by rotation, into either side of the anterior nares. It may then be secured by tying the free quantity of string around the ear, or fastening the string to the cheek by a small piece of adhesive plaster. The head of the patient is then to be inclined backward, and as the gelatine dissolves and flows from the posterior nares into the throat the patient may expectorate at pleasure.

These bougies dissolve in from ten to fifteen minutes.

The following are the medications I have used, which were made for me by Mr. C. L. Mitchell:—

No. 1.	Liq. iod. comp.,	♏v
2.	" " "	♏x
3.	Morph. sulph.,	gr. ¼
4.	Zinci sulph.,	gr. ij
5.	Zinci sulph.,	gr. ij
	Acid carbolic,	gr. ss
6.	Ext. krameria, fld.,	gr. viij
7.	Zinci sulph.,	gr. ij
	Acid carbolic,	gr. ss
	Ext. hydrastis, fld.,	gr. v
8.	Iodoform,	gr. ij
9.	Liq. iod. comp.,	♏x
	Acid carbolic,	gr. j
10.	Salicylic acid,	gr. j.

From all these medications I have received the best results from Nos. seven, nine and ten.

J. K., aged 23 years, applied to me, complaining for nearly eight months of a discharge from the back portion of the nostrils into the throat, which discharge was of a thin, mucilaginous character; his general health good; no specific history; sometimes suffered with slight headache. An examination revealed the nares to be moderately filled with mucus. I washed out the nares with Thudichum's nasal douche, after which I inserted two bougies (one into each side of the anterior nares) medicated with zinci sulph., gr. ij, carbolic acid, gr. ss, and ext. hydrastis, fld., ♏v. These dissolved in fifteen minutes. I made this man come to me three times a week, and inserted these bougies after his using the douche, on the same day. At the end of three weeks there was no discharge and had been no headache.

I have used these bougies with some good results in cases of ulceration of the nasal septum.

Clara G., aged 26 years, applied to me, complaining of great pain on left side of nose, which she had had for four or five days. On examination I found a somewhat superficial ulcer, about the size of a three-cent piece, on the left side of the septum. This I carefully cleaned with absorbent cotton, and inserted a bougie containing ¼ gr. morph. sulph., which dissolved in twenty minutes. I used one of the same kind on the next day, after which she had no pain. On the third day I used one medicated with two grains of iodoform (which takes half an hour to dissolve), and continued the use of the same daily, for a week, after which time the ulcer had healed very nicely, the patient having no pain or difficulty in breathing through the nostrils.

HOSPITAL REPORTS.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

CLINIC OF WM. PEPPER, M.D.,

Professor of Clinical Medicine in the University of Pennsylvania.

Reported by WM. H. MORRISON, M.D.

A Case of Widespread Syphilitic Disease, with Cystic Degeneration of the Pancreas, Numerous Pancreatic Calculi, Atheroma of the Aortic Valves and Arteries, Obstruction of the Bile Ducts, Distention of the Gall Bladder, Jaundice and Diabetes. Death. Autopsy.

GENTLEMEN—The patient now before us presents an extremely interesting and important condition. I shall first study those conditions which are rapidly passing away.

He is 61 years of age, a resident of this city. He has been a wholesale liquor dealer. Lately he has been a clerk. He has never been very intemperate, and says that he has never had any venereal trouble. He has had, however, a rather hard life, on account of business anxieties. For the past two years he has been in ill health. At first he was subject to constipation, which was followed by diarrhœa. The stools were light in color. He began to lose strength and to be subject to dyspeptic symptoms. Next, he had pain over the liver, and pain extending to the shoulder. Nine months ago he gradually became jaundiced. The color grew deeper and deeper, until it was quite dark; much darker than it now is. Eight months ago he noticed a lump under the ribs on the right side. He has lost forty pounds of flesh lately.

The jaundice is very marked in the conjunctiva. He has also well-marked arcus senilis. The jaundice extends over the whole body. We usually find it best marked where the skin is thin and soft, as over the stomach.

Looking at the abdomen, we see a little swelling on the right side. I grasp it and find that it is rounded; that it extends upward until I come to a ridge, which I find passes under the ribs. This is the edge of the liver. This mass is continuous, then, with the liver, which is much enlarged, and extends two inches below the border of the ribs. Passing around the lump, I again come to the edge of the liver; I also find a round swelling at the left lobe. What is this lump at the right side of the liver? It is the distended gall bladder. I find that it yields a little on pressure. It is just in the position of the gall bladder. It has the shape of the gall bladder; it can be traced up into the liver on both sides. This is sufficient to prove that it is the gall bladder very much enlarged, and evidently distended with bile. We have here a very remarkable condition: enlargement of the liver, a suspicion of growth in the left lobe, and great enlargement of the gall bladder.

In jaundice we have a failure of the bile to follow its proper course, and the bile pigment accumulates in the blood. From the blood it escapes into all the secretions and every tissue of the body, the brain and its membranes, the solid viscera and the bones. The jaundice is most marked in the parts which are usually whitest. It also stains the tears, milk and sweat; but perhaps the fluid in which the color is most marked is the urine. The healthy color of the urine changes to a brandy color, so dark sometimes as to be entirely opaque. A week ago this man's urine was a dark brandy color, almost the color of porter; now we find that it is only tinged with bile. The tests for the coloring matter of the bile are very simple. In the first place, if you shake the bottle and have a yellow color froth, that is sufficient. If we take a test tube and place some of the urine in it, and then allow a little fuming nitric acid to pass down the side, there will be a beautiful play of colors. In this case there is a very faint trace of green. If we place some urine on a plate and add a drop of the acid, we shall have the same effect produced.

There is another question connected with this subject. The bile consists of something besides coloring matter. It contains a number of organic compounds, the most important of which are glycocholic and taurocholic acids, in combination with potash and soda. These naturally pass from the body through the bowels; but when the exit of the bile is prevented these salts must accumulate in the blood. We would naturally expect to find them in the urine under these circumstances. The way to obtain them is to take a certain quantity of urine, evaporate to dryness, treat the residue with a large excess of alcohol, because the salts are soluble in alcohol, filter, and add an excess of ether, which precipitates the salts; then filter and dissolve in water, and purify by filtering through animal charcoal. We then add sugar and sulphuric acid, and if the bile salts are present there will be produced a cherry red color. This man's urine has been tested a number of times for these salts, but they have not been found. This process is unreliable and not of much clinical value.

I have seen cases where no bile salts could be detected in the urine, yet post-mortem examination proved that no bile could have escaped by the bowels for weeks. The presence of the salts in the urine is of value, but their absence does not disprove obstruction.

There is no albumen in this urine Its specific gravity is 1.010. It is less than the normal, which is 1.016. I will now test it for sugar. You will find, when we come to study diabetes, that there is a very important connection between diseases of the liver and diabetes. I never treat a case of hepatic without examining the urine for sugar. I use Fehling's solution, and find that there is present a considerable amount of sugar. The stools in jaundice become very pale, sometimes of a putty color. It is very unusual to find so small a quantity of biliary coloring matter in the urine with stools as light in color as this man's are.

Sept. 23. We shall now study this case carefully. We have found in this case a man overworked and run down with enlargement of the liver; deeply jaundiced; with immense enlargement of the gall bladder; with urine that is bile stained and containing sugar, although, remarkably enough, its specific gravity is only 1.010—below normal. Now, let us study this case, and endeavor to understand it fully.

I did not call attention before to the œdema of his lower extremities. They pit upon pressure as high as the knee. There was no albumen in the urine. We have found no reason to suspect disease of the kidney. Although there has been no fever, the action of the pulse has not been normal. The arteries are found to be very hard and atheromatous. The pulse is rather small and frequent. Examination of the heart shows obstruction of the aortic orifice. There is a systolic aortic murmur, with its maximum intensity at mid-sternum, and transmitted into the arteries of the neck. We find, in this case, very widespread disease of many organs. We have here atheroma of the arteries, fatty degeneration of the cornea, lesion of the aortic valve, enlargement of the liver, obstruction of the biliary duct, diabetes, and dropsy. There must be some very deep cause to explain all this.

First, in regard to the condition of the liver, I told you that I found in the epigastrium an irregular enlargement in the position of the left lobe of the liver. As I press my fingers deeply in at this region, I feel a round, irregular mass. It feels like enlarged glands; as though the glands in the fissure of the liver were enlarged.

What condition of the liver is present? We would at once think of cancer. Here we have a disease, coming on without apparent cause, inducing jaundice, which deepens and becomes persistent, and which has lasted about nine months. Here, then, is jaundice depending upon obstruction preventing the flow of bile into the bowel; an obstruction of a chronic organic character. We have evidence of this in the enlargement of the gall bladder. In carcinoma of the liver we have a nodular condition appearing in the liver or in the gall bladder. It presses upon the biliary ducts, causing jaundice. If it press upon the larger ducts it will cause extreme jaundice. If upon the smaller ducts, the jaundice will not be so marked. In carcinoma of the liver the liver is enlarged, there are round projections

from it, and it is lobulated, not uniformly enlarged. All these things suggest carcinoma.

There is one important point against cancer, and that is the absence of pain. He has had no pain at all, not even when the mass has been handled and percussed. This is very unlike carcinoma. Again, while it is true that there is enlargement of the liver, the enlargement seems to be principally due to the dilated gall bladder, and to the tumor in the lelt lobe. On the right side we have the normal shape of the liver.

What other conditions could comply with the symptoms? We find the liver enlarged where there is chronic congestion with fatty degeneration. There is a form of cirrhosis of the liver with enlargement; but in cirrhosis with enlargement although there often is jaundice, there is no cause to explain the enlargement at the left lobe nor this great dilatation of the gall bladder.

Another cause of enlargement is albuminoid degeneration. It is apt to arise in phthisis and constitutional syphilis. Our patient had, long ago, syphilis. In albuminoid degeneration, the liver usually retains its shape, but rarely is there any jaundice. Frequently in albuminoid degeneration of the liver, the kidneys and spleen are involved. They are not enlarged in this case. In albuminoid enlargement then, we have the liver simply enlarged, without pressure on the bile ducts and without jaundice. Frequently the disease will run its entire course without a trace of jaundice.

Let us examine the other lesions and see to what diagnosis they point. We have here aortic disease and widespread atheroma of the arteries. With syphilis we would be apt to have these lesions occurring. Heart disease with carcinoma is rare; but here we have heart disease and widespread atheroma, as we often find in the later stages of syphilis.

Suppose, now, that this is a case of albuminoid enlargement of the liver, with the same change in the glands in the fissure of the liver, forming the mass which I feel, and pressing upon the duct of the gall bladder; that would be a sufficient explanation of the symptoms we have here. We would be more apt to have œdema in that condition. We would be more apt to have nutrition well retained, and absence of pain, as we have here.

This is either carcinoma or syphilitic disease of the liver. I cannot now say which it is. It would be odd to have carcinoma with such good health; and, on the other hand, it would be odd to have such immense albuminoid enlargement without lesion of other organs. I tend to the opinion that it is syphilitic disease.

If it were carcinoma, there would be absolutely no indications for treatment, for the man has no pain and his nutrition is good. If it is syphilitic, we have more hope of doing good. If this be the result of a long standing const tutional taint, there is more hope of promoting the absorption of this man. I have been treating on this view. I first gave him a pill containing—

℞.	Hydrarg. iodidi viridis,	gr. $\frac{1}{6}$
	Ext. nucis vomicæ,	gr. $\frac{1}{4}$
	Ext. gentianæ,	gr. j. M.

But later, finding that the œdema was becoming more marked, and that the jaundice still continued, I substituted a solution of iodide of potassium and bichloride of mercury. We are also giving digitalis. We will watch this case with great interest. If the disease be syphilitic, we shall expect some benefit from our treatment. We leave the diabetes out of the case altogether, as the amount of sugar and the quantity of urine passed are not very great. I will bring these patients before you again, in order that you may see the result.

Autopsy.

October 11th. Gentlemen: You will remember that when I showed you the patient with aortic disease, atheroma of the arteries, distended gall bladder and a tumor in the epigastrium, I also pointed out to you the dropsical condition of his legs. This continued, and his urine lessened in quantity, until he passed only four or five ounces during the twenty-four hours. It became intensely marked with bile; until the last, it contained sugar, but no albumen; the quantity became so reduced that it amounted to complete suppression. The dropsy and ascites increased, and he sank into a state of painless coma, and passed away quietly. This case has been before you so often that I shall not go over the symptoms.

There was one point of grave interest connected with this case, and that was, whether this was a malignant, cancerous affection, or one due to syphilis. I told you, in the lengthy remarks which I made on this subject, that the case presented peculiarities that made either of these views difficult to adopt.

Examining the specimens before me, I find the pulmonary artery healthy; but there is intense disease of the aorta—hard, bony masses project from its surface. The aortic valve is thickened, rigid and useless. The mitral valve does not appear to be affected, and there was no murmur connected with this valve. There was a loud systolic murmur caused by the resistance to the passage of blood through the aortic valve. This atheroma is not limited to the arch, but extends to the whole aorta. The abdominal aorta feels like a tube of stone. There is entire calcification of the arterial system; it extends out through the divisions of the aorta. Now this arterial lesion was, as I stated to you, rather in favor of the affection being syphilitic. We do meet with cancer in heart affections, but it is very rare.

We found the liver enlarged, extending two inches below the ribs. Projecting two inches below this there was a hard, round tumor, and as I felt it it seemed to convey to my hand a sense of fluctuation. From its ovoid shape, indistinct fluctuation, position and continuity with the liver, I diagnosed it to be the distended gall bladder. You see that this view was correct. It probably measures seven inches in length and three or four inches in breadth, and contained more than half a pint of bile. We shall have to study carefully the cause to which this is due. You will remember that I attributed it to the pressure upon the cystic duct by the mass occupying the fissure of the liver. On pressing down deep into the epigastrium, I came across a mass, irregular and nodular, which occupied either the glands in the

fissure of the liver or some of the contiguous tissues.

Here is the stomach, which I shall remove. There was no evidence of implication of the stomach, there was no vomiting, and he enjoyed a remarkably good appetite until toward the close of life. I find that the stomach is easily separated from this mass, showing that it is not implicated. I will open it, and we find it filled with a horridly grumous fluid, but the mucous membrane is normal, and there is no organic lesion.

Placing these parts in their normal position, I find the left kidney, which is free, and I remove it. There was no albumen found in the urine. The kidneys are deeply stained with bile, as are all the tissues. They are enlarged, and I think the microscope will reveal some lesion of their structure.

We now see a mass lying in the region of the fissure of the liver, but it does not arise from the glands. What organ could give rise to this tumor? It might be the stomach, but that has been excluded. It was too deeply situated to be in the omentum. It might arise from the glands in the fissure of the liver, from the glands against the spine, or from the pancreas. It is connected with the pancreas. What I said to you the other day in regard to the implication of the pancreas in diabetes, makes this case very interesting. This mass evidently contains liquid. On cutting into this, I find plates and tubes of calcareous matter. The branches of the mesenteric arteries constitute regular tubes of calcareous matter. I feel these plates in every direction. We also find the pancreas filled with calculi. This is rather remarkable, coming in connection with those renal calculi in a previous case. This is a very rare condition. There are, perhaps, twenty calculi exposed by this section. I now open a cavity from which comes a considerable quantity of fluid. Within this cyst I find a number of smaller ones. This liquid must be carefully analyzed. While a syringe, with which to evacuate this, is being procured, I shall call attention to the capsule of the spleen. This organ is not much enlarged, but it is covered by a layer which feels like sole leather, and when it is cut through I find that it is a very extensive thickening of the capsule of the spleen, due to a chronic local peritonitis. This condition is very frequently found in old syphilitic subjects. Taking this in connection with the extensive changes in the vessels, I should be inclined to regard these lesions as syphilitic in their nature.

I have now evacuated this cyst and preserved its contents. I now come to a larger one, which contains the same kind of fluid. There is still a larger one to open, but this will be sufficient to show the nature of the change. I shall open the other one afterwards.

We have here, then, pancreatic calculi, with, evidently, chronic degeneration of the pancreas, tumor formed in its substance, and obstruction to its duct, whether by calculi or inflammation remains to be seen. We also have this mass pressing upon the cystic duct, causing enormous distention of the gall bladder; pressing, also, upon the vessels of the liver, causing enlargement of this organ; with this there is calcification of the aortic valves and of the aorta, not limited to the arch, but extending through the whole aorta and out into the small vessels; there is also this old local peritonitis. Therefore, taking all these changes together, I should, as I said before, be inclined to refer them to syphilitic disease. There has evidently been a great tendency to calcareous deposits, as is shown by these pancreatic calculi; we may also find them in the liver. This condition of the pancreas is very rare. I will have these fluids analyzed and the parts carefully dissected.

As far as the examination goes, it confirms the view that I expressed to you, except that I had no idea as to the nature of the tumor. I thought that it was due to enlargement of the glands at the fissure of the liver or of the head of the pancreas. It was situated so deeply, that I could not palpate it with sufficient care to detect fluctuation. A cyst of that size in the pancreas is so rare, that it would not have occurred to me to refer it to that cause.

Disease of the pancreas is exceedingly difficult to recognize with certainty. The reasons for this are obvious. In the first place, disease of this organ is rare, and in the second place, the organ is so deeply situated that we cannot easily reach it by palpation, and in so many cases there is tenderness over it, that prevents palpation, and again, in so many cases, it is connected with disease of the stomach or liver, which also prevents us from reaching it. Lastly, we know so little of the function of the pancreas in health, that it makes it very difficult to recognize any disorder of its function.

Take this last question, as to the function of the pancreas. The pancreas is concerned in the intestinal digestion of fats and the conversion of amylaceous matter into sugar, so that in a case of pancreatic disease we should look for fat in the stools and sugar in the urine. In this case there was no excess of fat in the fæces, at least, so far as could be determined by inspection. The stools were not subjected to distillation with ether. We did find sugar in the urine in this case, and when I pointed out to you the remarkable complication in this case, I called your attention to the fact that in some cases of diabetes the pancreas had been found diseased; but in this case the liver was so much diseased, and, as we often find diabetes, connected with derangements of the liver, I naturally attributed the diabetes to the hepatic trouble.

Examining the specimens, we find that the liver is greatly enlarged and the gall bladder distended. We find that the tumor in the notch of the liver is formed by the pancreas. As we pass from the gall bladder to the cystic duct we find that they are separated by a septum. The common duct is patulous. The pancreatic duct cannot be found; there is no trace of it in the intestine. The tissue of the pancreas is in a state of cirrhosis, the gland structure being to a great extent removed, and the organ has undergone cystic degeneration, the intestinal tissue being thickened and fibrous. The walls of the pancreas are studded with calculi. As I advance to the head I find a cyst with a large number of calculi—I could pick them out by the dozen. Many of them are branched and resemble coral. So that here we find a degeneration of the substance of the

pancreas and the presence of a series of smooth, walled sacs, containing a large number of calculi. The largest cyst of all is separated by this central partition. It held several ounces of fluid, and from it was taken this very large calculus which I show you. This is one of the largest calculi in existence. It was the pressure of this cyst upon the hepatic ducts that gave rise to the jaundice, and it was probably the irritation caused by its pressure that gave rise to the obstruction of the cystic duct. The great distention of the gall bladder was not due to bile, but to the retention of the secretion from its own lining membrane. So then we have here one of the rarest forms of disease: impacted pancreatic calculi, complete obstruction of the duct of the pancreas followed by cystic degeneration, with fibrous thickening of its walls, complete obliteration of the cystic duct, immense distention of the gall bladder, and enlargement of the liver.

This patient also had double aortic disease, an intense grade of calcareous degeneration of the arteries throughout the body, jaundice and diabetes. I would remind you that we here had an anomalous state of things, for in urine with a specific gravity of only 1.009 we found a large proportion of sugar. We see now that in all probability the diabetes was dependent upon the disease of the pancreas, although it may have in part been due to the diseased liver.

When you have a case of suspected pancreatic disease, you will expect to find the following symptoms: Persistent, marked, progressive emaciation—our patient did not have marked emaciation; pain in the epigastrium and pain referred to a corresponding point in the back, because the pancreas presses upon the nerves as they issue from the spinal column—this man complained of no pain whatever; vomiting, because the pyloric extremity of the stomach is pressed upon—this man did not vomit, but ate heartily; jaundice from pressure upon the hepatic duct—this man had jaundice, and on pressure a mass might be detected deep in the epigastrium. In such a case we would study the urine for sugar and the stools for fat. Disease of the pancreas is usually cancerous or cystic. In this case, so few were the symptoms pointing to the pancreas, and so marked were the symptoms pointing to hepatic disease, that I should make the same diagnosis that I made in this case if I again had a case presenting the same symptoms. The diabetes was the only symptom pointing to pancreatic disease.

Editorial Department.

Periscope.

Nervous Exhaustion from Weak Vaso-motor System.

Dr. F. P. Atkinson writes, in the *Practitioner*, February, 1881: Some persons are the subjects of a naturally weak vaso-motor system, and Dr. Hume, in the *Practitioner* of July, 1879, has very accurately described the distinguishing characteristics of those who are so afflicted. "They have," he says, "a soft, moist eye, a dilated pupil in a blue iris, and a thick, drooping upper eyelid. The nervous system, not well balanced, is easily disturbed by excitement. The blood vascular system is weak, atonic, as shown by the irregular heart, subject to palpitations and tumultuous action on slight exertion or sudden emotions, the small irregular pulse, the tendency to dilatations, and eventually varicosities of the veins, and the ready congestion of the capillaries on exercise or alcohol being taken." From my own personal observation, I should say that those who are thus constituted require longer rest than other people, and are easily upset by the use of alcohol, smoking, residence in a damp-warm climate, and sexual intercourse. Sexual intercourse especially seems to produce such an excessive amount of nervous exhaustion that it is necessary we should be able to recognize at once both the symptoms and the cause, and also to apply the appropriate treatment. The chief symptom complained of is a sinking, or vacancy at the pit of the stomach, which nothing seems to relieve, not even food; with this there is a feeling of drowsiness, some pain and swimmy feeling in the head, and great irritability of temper. The patient's sleep is heavy, as shown by loud snoring, but it is unrefreshing, and broken by frequent and severe startings, or muscular twitchings. On rising in the morning the patient complains of feeling giddy and light-headed; the tongue is dry and coated, and there is a nasty taste in the mouth; the breath is exceedingly offensive (the result of nervous exhaustion); the forehead and the body generally is hot and dry; the eyes look congested. In bad cases the patient will tell you he does not seem to be able to pronounce his words correctly when reading aloud, or direct the movements of his hands as he wishes while writing, or his legs on walking. In very severe cases I have known complete loss of speech, varying from an hour, or so, to two or three days, and also of control over the movements, both of the legs and arms.

The treatment in these cases should, of course, be directed towards controlling the cerebral circulation, and with this view four minims of the dilute hydrocyanic acid should be given every four hours (this has a sedative effect on the brain, spinal cord, and heart). Bathing the head with *cold* water, two or three times in the day, should also be strongly recommended, inasmuch as it acts as a direct sedative to the cerebral circulation. More than one patient has told me that chocolate relieves the sinking feeling at the pit of the stomach, and produces a more lasting effect than anything else; but what is really its action I cannot say. Plenty of milk should be taken, but no alcohol. In severe and prolonged cases, when the immediate symptoms have passed off, syrup of the lactophosphate of lime and iron, with small doses of tincture of digitalis and nux

vomica, or Kirby's compound phosphorus pills, are to be recommended, together with change to a bracing atmosphere.

On Quebrachine.

In the *Berliner Klinische Wochenschrift*, No. 40 (1880), quoted in the *Chemist and Druggist*, it was pointed out that the bark of aspidosperma quebracho acts in many cases as an anti asthmatic, but the author of this paper, O. Hesse, not being able to attribute this action to the alkaloid found by Fraud in the bark, and called by him "aspidospermine," set to work to examine the bark more closely, and has found in it, besides 0.17 per cent. aspidospermine, as much as 0.28 per cent. of a new alkaloid, which he terms quebrachine.

Quebrachine is but slightly soluble in cold alcohol, but hot alcohol dissolves it more readily, and it crystallizes from a solution in small white anhydrous prisms. It is indifferently soluble in ether. Quebrachine melts at 214° to 216° C. under partial decomposition. Its chemical composition may be represented by the formula $C_{21}H_{22}N_2O_3$.

Quebrachine dissolves in pure concentrated sulphuric acid with a bluish tinge, which becomes darker upon standing. When lead peroxide of molybdic acid is present the coloration is quite instantaneous and very intense. A crystal of potassium bichromate dropped into a solution of quebrachine in sulphuric acid produces the same effect.

Boiled with a solution of perchloric acid quebrachine yields, like strychnine and curarine, a yellow decoction, but, although very poisonous, 0.04 g. being sufficient to kill a small rabbit, Penzoldt finds that its physiological action is not identical with strychnine.

Quebrachine is a strong vegetable base. Its alcoholic solution turns red litmus paper blue, and it completely neutralizes even strong acids.

The author has formed several salts of the base, some of which differ from the corresponding salts of aspidospermine by being less easily soluble in water.

The author reserves further details of his investigations for a future paper.

The Treatment of Cancer of the Tongue.

In the December number of the *Bull. et Mem. de la Soc. de Chir.* (quoted in London *Medical Record*), is a report of a communication by M. Verneuil on the inutility and danger of any save operative treatment of epithelioma of the tongue. This disease, it is pointed out, has never been cured, either by internal treatment or by topical applications. M. Verneuil states that he seldom meets with a case of lingual cancer which has not previously been treated by iodide of potassium. Such treatment, it is argued, cannot be justified. It is a gross error to think that iodide of potassium has any efficacy in instances of true neoplasm, for, as is well known, this agent effects no amelioration in cancers of the lip, cervix uteri, and other organs. The diagnosis of epithelioma of the tongue, in the majority of cases, should not be difficult; and through the recent teaching of M. Fournier this affection may be readily distinguished from tertiary glossitis. There are, it is true, hybrid cases in which the cancer occurs in a subject of old syphilis, and in which the objective characters of the epithelioma are modified by the constitutional affection. This condition does not indicate any alteration of treatment, for the hybrid affection, in its course, termination and prognosis, resembles pure epithelioma, and should be dealt with in a like manner. M. Verneuil asserts that medicinal treatment of cancer of the tongue is not only fruitless, but also hurtful. Surgical removal of the disease is postponed, and so much precious time is lost. Iodide of potassium often excites troublesome and obstinate glossitis, and mercury stimulates the growth both of the primary epithelioma, and of any affected cervical glands. Chlorate of potash is as useless in cases of cancer of the tongue, as it would be if given for the relief of cancer of the cervix uteri. Epithelioma of the tongue, M. Verneuil holds, if taken in time, may be cured by operation. Mention is made of four cases of complete cure. In three of these cases the growth was small and superficial; in the fourth case a relapsing growth, together with a degenerated gland, was removed. When more than a third of the tongue has become involved, when the floor of the mouth is also affected, and when the disease has been progressing for longer than a year, the case is deplorably grave, and cannot then be treated by operation with any chance of success. Removal of lingual cancer, it is asserted, is not a serious operation when it can be performed by the mouth, and when the disease is recent and not extensive. Of two hundred such operations performed under these conditions by M. Verneuil, one only was fatal; and, in this instance, the death was due to pneumonia, and not directly to surgical action. Operation at an early stage of the disease is strongly recommended; and it is stated that between the early and favorable stage and the advanced and hopeless stage there is a long interval, at any period of which the surgeon may operate without risk, and with some prospect of permanent success.

Bleeding in Tetanus.

The following heroic treatment is given by a correspondent of the *Druggists' Circular*, February, 1881:—

Peter Forbes, a colored man employed by a farmer, cut one of his fingers very severely. Little notice was taken of the cut at first, but the man was struck with the fact that the long gash in his finger was scarcely bleeding. He said nothing about it until next morning, when he awoke and found the muscles of his mouth all contracted, and felt unable to open it sufficiently to speak. A physician was called in, who, upon arriving, examined him, and told him he could do nothing for him, as his case was a fatal one. Having left the house, he was shortly after sent for a second time, and went through the same course as before, saying he could do nothing for the patient, that there was no cure for his case that he knew of, and then retired. Peter, thinking that he was going to die, thought he would

resort to some means himself, hoping to effect a cure. He went to a closet and found an old shoemaker's awl and sharpened it, then he sat down and commenced to draw it across his *tongue*, cutting long gashes in it. As soon as he cut the first gash he felt greatly relieved; shortly afterwards breathing became more easy and the muscles somewhat relaxed. He, finding this to answer so well, repeated the operation several times and effected a *speedy cure*. To-day he is well and hearty and at his work. This was pronounced by several doctors as a case of lockjaw.

On Pleural Effusions.

At a late meeting of the Medical Society of London, Dr. Broadbent read a paper upon "Some Points in the Clinical History of Effusion into the Pleural Cavity." He first enumerated and explained the relative importance of the physical signs of pleural effusion, and pointed out that the curved line of dullness was due to the manner in which the lung shrinks around its root, and as the fluid rises the vocal resonance and vibration becomes exaggerated over that part of the chest-wall where the lung is still in contact. When the cavity is full of fluid the respiratory murmur may be conducted for a short distance across the back from the unaffected lung. Sometimes, however, the lung was prevented from collapsing by adhesions, by consolidation, or congestion; and he believed the persistence of bronchial breathing in such cases was due to imperfect collapse of lung, although the fluid was in large amount. The chief point he wished to urge was that while the ordinary signs of effusion into the pleural cavity—dullness, extinction of vocal fremitus, diminution of vocal resonance, and limitation of bronchial breathing to the region of the root of the lung—show that the lung retreats and shrinks before the fluid, loud tubular breath sounds at the base of the lung posteriorly and over the lateral and anterior aspect of the chest show that the lung has not entirely retreated, but that it retains a certain volume, and is more or less deeply immersed in the fluid. The patency of the bronchi and the partial condensation of the lung favor the transmission of sonorous vibrations. It is in these circumstances that œgophony is heard most distinctly and widely—from the thin layer of fluid intercepting some vibrations and transmitting others—conditions which ordinarily exist only in the earlier stages of effusion. In some of these cases there may occur some degree of vocal vibration at a period when the amount of fluid is sufficient to give dullness on percussion over the entire lung. Paracentesis would be of comparatively little value in such conditions, for the quantity of fluid is small, and the consolidation of the lung would persist after its removal; and most cases of this sort get well without resort to paracentesis. In one such case only thirty ounces of fluid could be withdrawn. The conditions are met with in the pleural effusion of renal disease, often accompanied by congestion and partial consolidation of the lung, preventing its collapse: also, in effusions which rapidly became purulent, as in empyema in children. Apart from these cases, the signs indicative of a large congested lung deeply immersed in the fluid are prognostic of rapid absorption, and Dr. Broadbent had seen this now in a sufficient number of instances to enable him to predict with considerable confidence the recovery of the patient without paracentesis and in a comparatively short time. One of the first steps towards recovery is a rather sudden disappearance of the tubular breathing and the substitution of the more ordinary signs of simple effusion; and it is probable that the congested lung has relieved itself by diffusion of serum into the pleural cavity, and that the amount of fluid there is actually increased. In conclusion, Dr. Broadbent stated the rules which guide him in recommending paracentesis. It should be resorted to at once when there is serious continued or paroxysmal dyspnœa; but in the absence of urgent symptoms a week or ten days may be given after one side of the chest is full, on the chance that absorption may set in, and a longer period still when the lung has not greatly shrunk. Old age, phthisis, or a phthisical tendency, are reasons for early tapping, as also is the existence of disease of the kidneys. The spot for puncture is the eighth space, in a line with the angle of the scapula, and he had come to prefer the common trocar and cannula, with antiseptic precautions, to the aspirator. The whole of the fluid should never be removed, or attempted to be. Where the effusion has lasted some time frequent partial emptyings are to be preferred.

Unilateral Hypertrophy of the Head.

A curious example of this was lately shown to the Pathological Society of London, by Mr. Barwell. He had first come across the boy, who was then seven years old, in the country, about six years ago. He had kept the case under observation, and some time afterward tied the carotid artery on the right, which was the affected side; the object of the operation being, not any great hope that it would alone lead to benefit, but to facilitate future operations. Six days afterward he died, of a not very copious secondary hemorrhage. The deformity had been present at birth, but had grown more marked with his growth. The right side of the face was twice as broad and one and a half times as long as the left. Near the ear was a patch of ichthyosis, which was increasing rapidly at the time of the operation. The enlargement was not due to cystic disease; for the enlarged parts were of a natural consistency; and the bones, as evidenced by a cast of the alveolar processes, had participated in the increase; and the sutures had been pushed over to the left. The right half of the tongue also was greatly enlarged. Mr. Barwell observed that the deformity might have been due to some functional derangement of the sympathetic, or, perhaps, as was suggested by the occurrence of secondary hemorrhage, to some imperfect development of the middle coat of the arteries. Unilateral overgrowth, to a slighter extent, was not very unusual, and Mr. Barwell had met with several cases. The slighter degrees of overgrowth of one side of the trunk were in some cases the often-overlooked cause of lateral curvature. It was nearly always the right side which was thus hypertrophied, the left being affected only once in fifteen cases.

Reviews and Book Notices.

BOOK NOTICES.

The Hygiene and Treatment of Catarrh. Part I. Hygienic and Sanative Measures. Part II. Therapeutic Measures. With 40 Illustrations. By Thos. F. Rumbold, M.D., St. Louis Geo. O. Rumbold & Co. 1881. Cloth, 8vo. pp. 473.

The wide prevalence of chronic catarrh, especially in the Mississippi Valley, has been prominently brought to the notice of the readers of this journal during the last few months. One writer has said that it may be called almost universally present in Iowa. It is remarkably obstinate, and is notoriously disagreeable to the patient, and his or her friends, and generally the despair and annoyance of the physician.

Dr. Rumbold, therefore, has done a real service to the profession by devoting to this complaint the full monograph before us. It is not a compilation, but the result of twenty years' study of the disease, and the careful analysis of very many cases. He does not promise any magic remedy, but describes in detail the particular sanitary measures, the operative procedures, and the local and general medication which must be persistently, patiently, and discriminately applied, in order to conquer the various forms of this rebellious malady. He uses a large variety of instruments, nearly all of which he has devised himself, and which he figures and describes. His objections to the use of the Eustachian catheter merit special consideration.

There are many original suggestions and observations on the anatomy and functions of the naso pharyngeal organs, and on the methods of their therapeusis, scattered through his pages, which cannot fail to attract attention. We can speak of it as the most exhaustive essay on the subject in any tongue, and one highly creditable to American medical literature.

Manual of the Physical Diagnosis of Diseases of the Heart, including the use of the Sphygmograph and Cardiograph. By Arthur Ernest Sansom, M.D. Third Edition. Philadelphia, P. Blakiston, 1881. Cloth, 12mo, pp. 300. Price $2.00.

Aids to Diagnosis. Part I. Semeiology. By J. Milner Fothergill, M.D. Part II. Physical. By John C. Thorowgood, M.D. pp. 61, 75. 16mo. Each, cloth, 50 cents. G. P. Putnam's Sons, New York City.

The third edition of Dr. Sansom's work is quite three times as large as the first, and the additions have been made with good judgment. Most of the increase is taken up with the descriptions of the sphygmograph and cardiograph, instruments which the author thinks should now be in frequent use by every educated physician. The value of their evidence, he maintains, is now attested by daily experience. The directions for their use are clear and full, and any one who wishes to familiarize himself with them will find no better guide. We do not observe much change in the other portions of the work, except some more detail on the cardiac action.

The two small works whose titles are given belong to the "Student's Aid Series," published in London. They are what may be called primers of medicine, and are largely used by the London students for "cramming" for an examination. Probably they are well suited for that purpose, but an examination of them leads us to doubt the utility of introducing them to American students; there are other works, better for this purpose, from American writers, and the second one named strikes us as quite superficial.

A Text-book of Human Physiology. By Austin Flint, Jr., M.D., etc. Third Edition, Revised and Corrected. New York, D. Appleton & Co., 1881. 1 vol., cloth, pp. 977. Price $6.

The author of this work takes rank among the very foremost physiologists of the day, and the care which he has bestowed in bringing this third edition of his text-book up to the present position of his science is exhibited in every chapter. A good portion of it has been rewritten, and such new views as the probable generation of heat in the body by the union of oxygen and hydrogen, and the formation of water; the discovery of the retinal red; the recent theories of the functions of the Malpighian bodies; the mechanism of micturition, as now understood, etc., have received such explanation as will render them familiar to students and readers.

The pages are freely illustrated, there being in all three hundred and fifteen wood-cuts and three lithographic plates, the latter showing embryological development.

The criticism that may fairly be made on the volume is that it is too large for a text-book. There are nearly one thousand pages, in such small type that each page has on an average eight hundred words! It appears to us this is entirely too massive a treatise to put into the hands of medical students. The author has not or does not care to exercise the faculty of judicious condensation. It could profitably be called upon in many portions of his work.

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A WEEKLY JOURNAL,

Issued every Saturday.

D. G. BRINTON, M.D., EDITOR.

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INFANT MORTALITY, ITS CAUSES AND PREVENTION.

If the preservation of life is the main object of medicine, as many assert, there then is no department of it that demands more vigilant attention than the condition of the individual during the period of infancy and childhood, for it is then that by far the heaviest mortality occurs; it is then that existence runs its greatest risks.

This is strongly illustrated by the examination of vital statistics. Thus, in England, according to MR. BROWNING, among the poorer population of the large cities the child death-rate usually amounts to half (fifty per cent.) of the total deaths at all ages, and occasionally exceeds sixty per cent. of those total deaths, while in all England the child death-rate is only twenty-five per cent. of the total deaths, and is, as a rule, less than this in the healthy districts and among families comfortably off. In proportion to the higher social position of the parents, the child death-rate is everywhere diminished, so that among one hundred children of the upper and middle classes it does not average more than four casualties yearly, while it ranges from ten to twenty-six, seventy, and even ninety, in some of the poor quarters of the cities. Of 1,000,000 children of all ranks born in England, some 260,000 do not reach their fifth year. In the unhealthy districts at least 500,000, and in some places 920,000, working-class children, out of each 1,000,000 born, fail to reach the age of five years. These last figures are simply appalling.

Yet even these figures are rather more favorable than others in the Old World. Take Spain, for example: As in most of the southern countries of Europe, the rate of infant mortality in Spain is terribly high. During last November, the mortality of infants under one year of age was equal to two hundred and forty-two per thousand of the recorded births, not far short of twice the rate prevailing in England and Wales.

We have at sundry times given statistics of the mortality of infancy and childhood in the United States, which show that we have little to boast of in comparison. With us, as in the Old World,

no decade of life approaches in peril the first one.

When we come to analyze the causes of this excess of deaths over other periods of life, there are several which at once suggest themselves. Many cases of so-called still-born children, and many which die within a day or so of birth, are attributable to the ignorance or carelessness of midwives, who do not use the proper means to resuscitate the asphyxiated neonatus, or neglect it, either through carelessness or design. The parents often have more children already than is agreeable to them, and they are not urgent that every possible means be resorted to to preserve the unwelcome addition to their crowded board.

Improper food is another widely destructive agent; perhaps none more so. Disorders of nutrition and intestinal diseases carry off tens of thousands in the first and second years of life. When a child has to be reared "on the bottle," or one of the numberless "infant foods" which are in the market, its chance for life is at once materially diminished. Add to this the ignorance of most mothers on the whole subject of the proper feeding of babies, and the risk, even under favorable circumstances, is great indeed.

Hereditary diseases form another special danger at this epoch. Some of them expend their principal force on the extremely young. Take one which is very widely disseminated, more so than even most physicians choose to believe, syphilis; its transmitted forms explode with most destructiveness upon the tender infant, predisposing it to succumb to slight maladies, and poisoning its nervous and nutritive activities, so that the child dies through those mysterious and vague maladies called marasmus, fits, congestion of the brain, etc., which figure so largely in the older mortality reports. Scrofula, too, impresses its deteriorating power chiefly on the tissues of the very young, leading to degeneration of tissue and disturbance of physiological function.

Childhood, again, is the season of epidemic diseases. There is a formidable group of these which are distinguished as "diseases of children;" not that they are confined to childhood, but that they are so much more prevalent and dangerous in patients at that age. In accordance with one theory, of doubtful authenticity, they belong to the class of "zymotic" diseases, their exciting cause being, perhaps, the presence and development in the economy of certain low organic forms. Their greater virulence in children may be explained either by the supposition that their active poisons find a more congenial soil for growth in the tender tissues and rapid vital changes of the young; or that the law of "the extinction of the unfit" (which is the correct expression for the survival of the fittest) is in more active operation in early life—as it naturally would be.

These four causes: neglect at birth, improper feeding, hereditary disease, and epidemics, explain a great deal of the excess of the mortality of infant over adult life. There are also to be taken into account the greater liability of children to accidents; their diminished resistance to extremes of temperature, heightened by improper clothing; their ignorance about the commonest sanitary precautions; and their want of self-control over their appetites and passions.

The practical question arises, how far are the causes above enumerated capable of being modified or removed. That with proper surroundings they can be greatly reduced is evident from the English statistics above quoted, where the annual mortality is reduced from ninety per cent. in one class of society down to four per cent. in another! A truly wonderful contrast!

As, however, it is simply impossible to make all classes rich, sober, wise and dwellers in healthy country districts, the next best resource is, in the opinion of many, to establish large sanitaria for children, where they can be received and cared for under the best surroundings.

Beginning with early life, the first of these institutions must be foundling hospitals. Foundlings in America are generally sent to the almshouse, no special provision being made for their reception or care. They are generally picked up in the street by a policeman, after they have been exposed to cold and want. Their consequent death-rate is needlessly high. In Paris there is

now an institution known as that of the "Enfants Assistés." This institution replaces to a certain extent the old "Tour des Enfants Trouvés," where the children of indigents, or those abandoned by their parents, are, up to the age of sixteen or eighteen, admitted and maintained at the expense of the municipality. The number of children thus taken care of amounts, in the department of the Seine alone, to 27,000, involving an expenditure of 4,000,000 francs, or $800,000. During the last year no fewer than 3200 newborn infants, abandoned by their parents, were admitted into this institution.

We believe that such institutions are considered immoral by a certain number of virtuous women and unco guid men in the United States, so, perhaps, we had better not advocate this humane care for these wretched infants, but leave them to be thrown down cesspools and left to die in side streets. Public morality, it is said, is greatly enhanced by thus disposing of the fruit of illicit love.

Less objections can be urged to orphan asylums, and their benefit is undeniable. Mr. Browning, whom we have already quoted, and who is an English Health Officer of merit, makes the really extraordinary statement that, in nine large orphan asylums near London, whose inmates are, as a class, naturally of the feeblest constitutional type, mostly inheriting scrofulous, syphilitic, and alcoholismic diatheses, the average annual mortality is but 3 per 1000, or 0.3 per cent.

Such results have stimulated philanthropists to increase such institutions. We observe it lately noted that the Russian Society of Public Health is actively engaged in endeavoring to promote the foundation of sanitary colonies for the treatment of children suffering from chronic diseases.

The establishment of summer sanitaria, and of children's colonies, during the hot months, has been a genuine blessing to the poor infants of our crowded eastern cities. Their few days among the flowers, in the woods and through the valleys of the country, in June and July, are like a glimpse of heaven to these dwellers of reeking slums and foul alleys. As the season is approaching when this estimable charity will again begin its labors, let each speak for it, and work for it, as opportunity offers.

Notes and Comments.

An Instance of Movable Liver.

In the *Wiener Med. Blätt*, is recorded an observation accidentally made on a physician by Dr. Chvostek. There were no symptoms whatever of anything wrong in the abdomen, and there was no history of violence, or of any occurrence that threw light upon the condition. When the man stood up, the upper and posterior border of the liver was felt to come forward from under the margin of the thorax, and to be six centimeters and a half below the tip of the xiphoid cartilage in the right parasternal line, and one centimeter below that point in the left parasternal line. The left end of the liver was plainly felt through the abdominal wall, and from it the anterior, or rather the lower edge of the liver could be traced arching down to the right, being in the middle line fifteen centimeters below the xiphoid process, and in the right nipple and axillary lines respectively seven and one-and-a-half to two centimeters below the edge of the thorax. The liver did not markedly descend on taking a deep inspiration. In the horizontal posture it could be replaced under the ribs to a considerable extent. In lying on one side the organ fell to some extent toward the dependent side. The lower edge of the suspensory ligament could be felt tightly stretched, but this produced no pain, and so completely absent were all symptoms that the condition was only discovered accidentally.

Intravenous Injection of Ammonia.

Mr. Thomas E. Clark, of Bristol, states (*Brit. Med. Journ.*, March 12th), that he has tried this in surgical collapse, with promising results, and adds:—

"I feel sure that in many cases of supposed collapse from hemorrhage the collapse is due, not so much to the loss of blood, as to nervous shock; and, therefore, ammonia is more likely to be beneficial than transfusion of blood. There are many cases of collapse from nervous shock in midwifery practice which would be benefited, if not saved, were the cause more thoroughly understood; there is not time for remedies to reach the system other than by being placed directly in the venous channels."

On Congestive Dysmenorrhœa.

At the conclusion of an article in the *Lancet*, Mr. Herman states his conclusions on this subject as follows:—

1. The term *congestive dysmenorrhœa* is one which has no definite and generally accepted meaning. but is applied by different authors to different conditions.

2. That there is a form of dysmenorrhœa characterized by deficiency in the quantity of the flow, with increase in the pain, these changes occurring in a patient whose general condition is not such as would cause menstruation to become scanty, and who is otherwise in good health.

3. In such cases local depletion always relieves, and if the changes be recent, cures, the patient.

4 That in these cases the absence of appreciable morbid conditions other than congestion, and the prompt relief by local depletion, give good reason for thinking that the pain is due to congestion.

5. That it would be well either to restrict the term "congestive dysmenorrhœa" to these cases alone, or at least to separate such cases from all the other forms of disease to which the term congestive dysmenorrhœa has been applied, the adjective *primary* being suggested as the best distinguishing prefix.

The Causation of the Uniformly Small Pelvis.

Dr. P. Müller writes upon the frequency and etiology of the uniformly narrow pelvis (*Archiv für Gynäkologie*). He thinks that narrow pelves are more common than is supposed; that they are thought rare because obstetricians do not systematically measure the pelvis. Out of 1177 cases in his clinique in which the pelvis was measured, he found the following number of cases of the different pelvic deformities: 1. The flat pelvis, 95 (simply flat, 86, rachitic, 9). 2. Generally contracted pelvis, 88 (generally contracted simply, 71, generally contracted and flat, 4, generally contracted and rachitic, 12. 3. Osteomalacic, 2. 4. Obliquely contracted pelvis, 2. 5. Funnel-shaped pelvis, 4. The following are the conclusions as to its etiology to which he has arrived: (1.) He believes he has brought forward proof that in his part of the world (Berne) the generally contracted pelvis, which elsewhere is seldom met with, occurs with exceptional frequency. (2.) That rickets contributes much more to its production than is generally admitted. (3.) He is inclined to assert that among the large number of pelves belonging to this category which are not rachitic, cretinism is a causal condition in not a few, and that it is highly probable that in the Berne district this condition plays a part in the etiology of this kind of pelvic deformity. His last conclusion is a practical one. (4.) That in a large majority of these cases the development of the fœtus is such that its small size diminishes considerably the risks of labor.

The Treatment of Burns.

The London *Medical Record* gives the treatment pursued by a writer, who, as physician in chief to a large iron mining and smelting company in Styria, has cases of burns very frequently presented for treatment, and has found the following method most successful. The wound is first cleaned (without opening the blisters), then disinfected with a two per cent. solution of carbolic acid, and covered with a thick furniture varnish, prepared from linseed oil and litharge, in which five per cent. of salicylic acid has been dissolved by warming. The varnish is allowed to dry and another coat applied; over this a layer of Bruns' cotton is placed, about two thirds centimeter in thickness. The wound seldom suppurates, generally healing under the varnish, which is finally removed as a dry pellicle, no change of the dressing having been necessary. Should, however, suppuration be indicated by the setting in of fever, or by the occurrence of painfulness, the dressing is removed from this locality; if the spot be not over five centimeters in diameter, nothing further is done than to strew the moist surface with dry powdered salicylic acid; if larger, an opening is cut in the dressing, the salicylic acid is applied as before, and then covered with a fresh layer of cotton. The scars become, by this method, entirely smooth, white, and are not hypertrophied.

Rational Sundays.

The *Lancet* and other leading medical and lay journals have expressed themselves decidedly in favor of having the British Museum open on Sundays. A petition "in favor of a rational Sabbath," from the medical students of London, has been proposed. The opposition to such measures is gradually weakening in both England and this country, and the intelligent public are yearly becoming convinced that it is better for the health and morals of that large class who have to work six days out of seven, that some better entertainment should be provided for them on Sunday than walking the streets or befogging themselves in drinking saloons.

Special Reports.

No. IX.—Ophthalmology.

BY C. S. TURNBULL, M.D.

As the annual literature of ophthalmology is more than any one man in active practice, even in that department alone, can manage to read, though he religiously devote every spare moment to his journals (special or general), it has been our aim, according to a wish expressed by the editor of the Medical and Surgical Reporter, to furnish ophthalmological notes of interest and practical value to the general practitioner.

In attempting to review this special department of medicine, we are, of necessity, deeply indebted to the *Archives of Ophthalmology*, edited by Dr. H. Knapp, of New York, in conjunction with other eminent ophthalmologists from all parts of the world.

We have endeavored, in every instance, to mention the source from whence information has been derived, and have presumed, when points of peculiar interest have arisen, by adding notes based upon personal experience and the early training under Dr. H. Knapp, who was the first to inspire us with an appreciative admiration for this branch of medicine.

Apart from what is contained in special journals it is almost impossible to pick up a modern medical periodical without being able, before closing the same, to learn some fact of ocular importance, and it is for those who are actively engaged in general practice, and who must read as they go, that we have endeavored to collect and condense items of practical interest in ophthalmology, and have not deemed it advisable to refer to other than recent articles. We have commenced with a reference to vol. xliv, No. 14, of this journal, which contains a review of the Transactions of the American Ophthalmological Society, Newport, 1880.

Under the title of Ophthalmic Miscellanies, (*A. f. O.*, Vol. ix, No. 3, p. 279), F. C. Hotz, M.D., of Chicago, reports a case of

Tonic Blepharospasm of Five Months' Duration Relieved by one Application of Tincture of Iodine.

Miss Martha I., aged 17 years, American, was admitted to the Illinois Charitable Eye and Ear Infirmary on the 9th of March, because for five months she had not been able to open her right eye. Nine years ago she received a severe blow upon the right eyebrow with a piece of wood, and four months later a piece of dry bread was thrown at her eye. These accidents, however, did not seem to be of any consequence, for the eye continued to be as good and strong as the other, until one year ago last fall, when both eyes became very red and painful. The inflammation (which probably was phlyctenular keratitis) was particularly in the right eye, and lasted three months. Then her eyes were well again until five months ago, when she had "erysipelas of the eyelids;" the lids of the right eye were swollen and red, and when the swelling had disappeared she could not raise the upper lid; and, in spite of various remedies her physicians had tried, the right eye remained closed.

The examination revealed a very remarkable tetanic contraction of the supra-orbital portion of the right orbicularis muscle. The eyebrow was drawn down, being considerably lower than that of the left eye; it covered the whole upper lid, so that the ciliæ only were visible. The integument of the region of the eyebrow was neither red nor swollen, nor tender on pressure, but it was firm, like a contracted muscle, and the patient felt an unpleasant soreness in it. Nowhere about the head or neck could I find any "pressure point;" but when the eyebrow was lifted up and held in its natural position by a gentle pressure of the finger against the supra-orbital margin, the patient could at once open her right eye without the least difficulty; the tarsal skin appeared perfectly smooth, there being evidently no spasm of the lid portion of the orbicularis muscle. As soon as the finger was withdrawn from the eyebrow, it was drawn down and the eye closed again. Electricity had no effect upon this spasm. The eye was very hypermetropic; showed considerable hyperæmia of the ocular conjunctiva and several superficial opacities in the cornea.

Thinking the blepharospasm might, perhaps, have been caused by spasm of accommodation, or by irritation of the corneal nerves, I instilled atropine. But the repeated use of the ($\frac{4}{3}$ per cent.) solution did not affect the spasm. Before and after atropinization V. = $\frac{20}{30}$; H. = $\frac{1}{12}$; L. E. V. = $\frac{20}{20}$; H. = $\frac{1}{12}$; cornea normal. At a loss what further to suggest, I remembered a case of persistent blepharospasm, which Prof. Zehender relieved by the use of tincture of iodine. And, *ut aliquid fiat*, I penciled tincture of iodine into the region of the right brow. The effect was like a miracle; after two minutes the muscle was relaxed, the eyebrow had recovered its natural position, and the patient could open and shut the eye at will. But, strange to say, on the following day the right lower lid, which had been perfectly normal, was inverted. It was a spastic entropion, which was easily relieved by a slight traction upon the lid. During the day the lid retained its normal position, but became inverted again during the night. On March 16th, therefore, I applied tincture of iodine upon the integument of the lower lid, with the same happy effect as in the case of the upper lid. The spasm was relieved and did not recur, although soon afterward (from March 18th to 24th) the patient had an attack of erysipelas of the right side of the face. On April 3d she left the infirmary.

Dr. H. Knapp mentions

Some New Ophthalmoscopic Changes from Concussion of the Retina.

K. was struck with the peculiar ophthalmo-

scopic appearance of an eye which the patient had hurt against a hard object.

"He came to the clinic day after day. His sight was somewhat dimmed, and in the outer part, where the eye had been hurt, the conjunctiva was slightly œdematous and suffused with blood. The refracting media were clear, the pupil was regular in shape and mobility, the lens was in position and uninjured; but at the periphery of the outer upper quadrant of the fundus the *retina was milky-white, interspersed with some punctate hemorrhages* in an area about four times the extent of the optic disc. The milky patch was whitest in the centre, and at the edges faded away gradually into the healthy background. There was no other abnormity in that eye. When I saw the patient again, in a few days after, the patch was much less opaque, having a whitish-red color; and after some days more, when I saw him again, it had disappeared, just as had the œdema and suffusion of the conjunctiva. His sight was normal. * * * * * * * * For this peculiar white opacity of the retina, I know no other cause than concussion. It resembled the opacity we notice after embolism of the central retinal artery, but the picture was still more similar to that which we see after resection of the optic nerve, when, as is frequently the case, the blood vessels remain filled. It disappears in the same way, only more rapidly. I do not remember having seen it in other cases, though I have no doubt that it is of frequent occurrence, only overlooked on account of its evanescent character and the absence of marked and lasting functional disturbances. I wanted to put it on record as an objective symptom of concussion of the retina, which probably has been noticed also by other observers."—*A. f. O*, Vol. IX, No. 3.

Dr. SWAN M. BURNETT, of Washington, reports (*A. f. O.*, Vol. IX, No. 3), an abstract of ophthalmological papers read at the last meeting (31st) of the American Medical Association, among which was one by Dr. E. Gruening, of New York, who exhibited a

Magnet for the Removal of Particles of Steel and Iron from the Interior of the Eye.

Dr. G. has been experimenting for some time with various forms of magnetic apparatus, with the view to making an instrument possessing the greatest amount of magnetic polarity within the least possible dimensions. He first tries a well magnetized steel cylinder, filed to a long, slender point. This, however, was not satisfactory, since its polarity was feeble and the point was easily broken. He then fitted a needle of iron into the steel magnet, and found it to act stronger, and the needle did not become brittle. He then joined a number of cylinders together, and united them with a cap at each end; and at one end he inserted a needle 52 mm. long, 1 mm. wide, and 0.3 mm. thick. His present instrument will support a key weighing 28 grams. In order that the instrument may not lose any of its power, it is provided with a keeper which joins the two ends, and thus keeps the current of magnetism within the magazine.

The Detection of the Presence and Location of Pieces of Steel and Iron in the Eye by the Indications of a Magnetic Needle,

was the subject of a paper by Dr. T. R. POOLEY, of New York.

The idea was first suggested to the author by some experiments of his brother, Prof. J. H. Pooley, of Columbus, on the detection of such bodies in other portions of the body. Dr. Pooley detailed at length the experiments he had made on the eyes of animals, and the conclusions he feels justified in arriving at are as follows:—

"That a steel or iron body may be detected by a suspended magnet when the body lies near its surface. The presence and position of such a foreign body may most surely be found by making it magnetic by induction, and then testing for it by a minute suspended magnet. The intensity of deflection of the needle is proportionate to the depth of the body. Changes of deflection of the needle indicate changes of position of the foreign body."

Where a foreign body, especially a piece of metal, has entered the *interior* of the eye, our advice, in the majority of cases, would be to enucleate the eye. If the body can be seen an attempt at removal would be justifiable. The incision must be made behind the ora serrata, and the foreign-body hook of Knapp be used under illumination. If attempts at removal should prove unsuccessful, enucleation can be resorted to.

From the "Quarterly Abstract of American Ophthalmic Literature," by Dr. S. M. BURNETT (*A. f. O.*, Vol. IX, No. 3), we select the following:—

Traumatic Astigmatism.

Dr. J. B. ROBERTS, *Medical Gazette*, February 21st, refers to astigmatism after cataract operation, which he has found to vary from $\frac{1}{15}$ to $\frac{1}{10}$, and the astigmatism resulting from corneal ulcers. The last is mostly irregular, but still, benefit is often found from the employment of cylindrical glasses."

On the Relative Value of Atropia and Duboisia in Ophthalmic Practice.

By S. D. RISLEY. *American Journal of Medical Science*, April:—

R. has used duboisia in 140 cases for paralyzing accommodation in testing refraction. From a study of its use in these cases and in inflammatory affections, he arrives at the following conclusions:—

1. That in solutions not stronger than two grains to the ounce, duboisia sulphate is free from danger. 2. That the duboisia sulphate more rapidly paralyzes the ciliary muscle than a four-grain solution of atropia sulphate. 3. That the duration of its effect is less than half that of atropia sulphate. 4. That the preparations now in the market are more liable to irritate the conjunctiva than neutral solutions of the sulphate of atropia. 5. That in the treatment of inflammations of the eye, duboisia is quite as useful as atropia, and may, therefore, be used as a substitute.

The same author contributes an interesting paper on "Homatropin Hydrobromate as a Mydriatic." *American Journal Medical Science*, January, 1881

A New Operation for Symblepharon, and Permanent Cure.

By E. McFarlan. New York *Medical Record*, April 10th:—

The attachment was below. The lid was dissected upon a pin passed horizontally through the integument; another pin was passed through the cheek, parallel to this one, and the two were united by a figure of-eight ligature, thus producing a temporary ectropion. As soon as the conjunctiva had healed. the ligature and pins were removed and the difficulty was found to be permanently relieved.

The Parasitic Theory in Ophthalmology.

By W. W. Seely. Cincinnati *Lancet and Clinic*, April 17th:—

Dr. S. puts himself on record in regard to this theory as follows: "The danger in all conjunctival inflammations is corneal complication; and that that complication comes from infection, I believe, will hardly be denied; and, furthermore, that the infection arises from losses of corneal epithelium allowing entrance to the germs; and, furthermore still, that in a vast number of cases the erosions are brought about by the officiousness of the surgeon and his injurious remedies, I firmly believe."

Concerning lesions of the cornea I fully concur with Dr. S. Sins against poor inflamed eyes are oftenest those of commission; would they were of omission; nature would have a better chance.

The Value of Salicylic Acid in Treatment of Rheumatic Diseases of the Eye.

By F. C. Hotz. Chicago *Med. and Surg. Exam.*, May:—

Four cases of acute iritis. of probable rheumatic origin, are given, in which salicylicate of soda was administered, in addition to the usual treatment, with good results; and two cases of paralysis of the motor oculi nerve were much benefited by salicylic acid, and in doses of 0.15 to 0.25 every three or four hours.

We have had equally good results in the use of salicylate of quinia in cases of rheumatic iritis.

On Gonorrhœic Irido-choroiditis.

By C. J. Kipp. New York *Med. Record*, June 26th:—

K. gives the detailed history of three cases in which there seemed to be no doubt of the connection between the uveal inflammation and urethral discharge.

A Case of Mixed Astigmatism, Supposed to have been Caused by the Sucking of the Eye by an Infant.

By D. Webster. New York *Medical Record*, July 10th:—

One eye was emmetropic, the other had V. = $\frac{5}{100}$, but it was raised to $\frac{10}{10}$ by — $\frac{1}{18}$ c, axis 70°, combined with + $\frac{1}{12}$ c, axis 160°. Vision in the lost eye was said to have been normal until after a period, when, to quiet her infant, she allowed it to suck her eye.

The Anæsthetic Effect of Cold upon the Cornea as a Therapeutic Measure.

By H. S. Oppenheimer. New York *Med. Jour.*, July:—

For the relief of all those symptoms due to hyperæsthesia of the cornea, photophobia, pain, blepharospasm, etc., Oppenheimer was induced to try melted ice dropped into the eye. He has found it useful in all forms of corneal inflammation, except, perhaps, the suppurative. He directs the water to be dropped in the eye every few minutes, from half an hour to an hour, lengthening the interval as the symptoms improve. He has used it in twenty five cases.

We have for the same symptoms used muriate of morphia (pure) with marked beneficial effects, especially when combined with equal parts of atropine or eserine in solutions.

On the Nature of Cataract and its Treatment by Electricity, with the Report of a Case.

By E. Evetzky. New York *Med. Jour.*, July:—

Dr. Neftel is the originator of a recent discussion of the influence of electricity in the progress of cataract, by his article in *Virchow's Archives*, Bd. 79, p. 465. The extravagant claims there set forth. and further promulgated in this country through the columns of the *Churchman* newspaper, have been successfully met by Drs. Knapp, Agnew and Webster. in letters published in the New York *Medical Record*, under the dates of May 15th, 22d, 29th, and June 12th, to which letters the reader is referred who is desirous of following the matter in detail.

Dr. Evetzky's article is an attempt to show in what manner electricity might exert a favorable influence in the progress of cataract, but the case he cites in illustration fails to support his belief, because at the end of the treatment V. was much worse than at the beginning. It is true V. was at one time found to be better than at first, but the circumstances under which the test was applied are not given. This is an unfortunate omission, since, as Dr. Knapp remarks in one of his communications, persons affected with central cataracts (as in this case) have very variable vision, according as their pupils are larger or smaller under the influence of light.

Optico-ciliary Neurotomy, the proposed substitute for extirpation of a lost and painful eyeball. By J. J. Chisholm. Transactions Medical and Chirurgical Faculty, Maryland, 1880.

Up to the date of publication of the paper Chisholm had done ten operations, in two of which he had to subsequently enucleate, after a lapse of three weeks in one, and of five months in the other.

From the German report on the progress of Ophthalmology for the second half of the year 1879,* we select the following:—

* Translated by Dr. R. O. Born, *A. f. O.*, vol. ix, No. 3.

Dr. H. MAGNUS, of Breslau, says, in reviewing the book of Dr. Alt, on the "*Normal and Pathological Anatomy of the Eye*," with ninety-five wood-cuts, drawn from his own preparations (Weisbaden. F. Bergmann, 1880, the English edition, by G. P. Putnam's Sons, New York):—

"A compendium of the normal and pathological anatomy, important and indispensable to the teacher as well as to the practitioner. Alt has laid more stress upon the pathological conditions, and less extensively described the normal structures. A great number of most instructive engravings, drawn from nature, by the author, materially increase the value of the book, and facilitate the understanding of the pathological processes. The book really fills a long felt want in our literature, and will greatly contribute to the study of the pathology of the eye."

This book will be found most reliable to those studying the microscopic anatomy of the eye, because from Stricker, etc., the histology can be thoroughly worked up; but we must turn to Alt when we want advice concerning the microscopical examination of a pathological eye. This latter is the information wanted by the surgeon, who is always supposed to be familiar enough with his histology.

MAUTHNER. *Hemiopia.* (*Vortrag in der wissench. Vers. d. Wiener med. Doct. Coll.*, 24 Mærz., 1879; *C. f. A.*, p. 316.)

"He states, as to the origin and course of the optic nerve fibres: The centres are in the posterior lobes of the cerebrum; from there the fibres pass through the intercalated ganglia: thalami optici, corpora quadrigemina and geniculata; they emerge as optic tracts; until then, without a partial crossing of the lateral bundles, they are partially crossed in such a manner that in each optic nerve the main portion of the fibres comes from the opposite side of the cerebrum."

D'ŒNCH. *Contributions to the Knowledge of Congenital Ectopia Lentis* (*C. f. A.*, Vol. IX, p. 31), will appear in the English edition of these archives. Careful bibliography. The results are as follows:—

"1. Ectopia lentis is a formative defect, the causes of which are not yet explained.

2. It always affects both eyes, in most cases symmetrically.

3. The dislocation is almost always upward, up-and inward, or up-and outward.

4. Most frequently (about 80 per cent.) the lenses remain clear; they are often smaller than normal.

5. The zonula Zinnii can either be present or wanting.

6. It is connected with myopia in about one-fourth of the cases.

7. It may remain stationary during the whole life, or develop into spontaneous luxation.

8. Heredity plays a part in its etiology."

Dr. JOHN B. ROBERTS, of this city, contributes an interesting case of "Ectopia Lentis," in the Philadelphia *Medical Times*, January 29, 1881.

We have been recently consulted for a similar case, in which both lenses were symmetrically displaced, and the patient, a lad aged fifteen years, a pupil in the Philadelphia Central High School, was in the condition of a person recently successfully operated on for cataract: *i. e.* without lenses. He used but one eye at a time and saw perfectly with either at 2½″, rubbing his nose on the page as he read, and steadying his hand on his forehead as he wrote. Beyond that distance everything was obscure and imperfect in outline. The adjustment of proper glasses secured for him full distant and near vision, and opened to him a new world.

(*To be continued.*)

CORRESPONDENCE.

Quinquinia.

ED. MED. AND SURG. REPORTER:—

In your issue of February 19th, in the course of an interesting editorial article on the cultivation of cinchona trees, you advert to the fact that in consequence of the abrogation of the duty on quinine, manufacturers in this country are unable to compete with those abroad, and the production of quinine in the United States has fallen off about forty per cent., from an annual average of 900,000 ounces to an average of about 500,000 ounces. "In place of it," you go on to say, "the manufacturers are pushing with vigor substitutes, such as cinchonidia, which is protected by a duty of forty per cent., and the various mixtures of the commoner alkaloids which are rendered at a larger profit than the sulphate of quinine would allow."

I desire, in this connection, to call the attention of your readers to a preparation which, while it contains the other, or as you denominate them the "commoner," alkaloids, cannot properly be called a "*mixture*" of them. This designation is entirely proper and truthful, I believe, as applied to many, perhaps all, of the combinations offered as substitutes for the sulphate, with this one exception. The article to which I refer is offered to the profession under the name of Quinquinia. It consists of all the extractives and alkaloids of cinchona in their natural combination, except quinine, which constitutes about fifteen per cent. of the entire mass.

None of them have been extracted and then re-introduced or re-combined, but they have simply been left in their natural conditions, proportions and combination, and purified in mass from excrementitious, inert and irritating substances.

As you will see by the article which I enclose, and which I had the honor of reading before

the Medical Society of the State of Pennsylvania, at its last meeting, the composition of this residual extract is found, upon analysis, to be very nearly the following:—

Quinia alkaloid,	15	per cent.
Quinidia "	15	"
Cinchonidia "	15	"
Cinchonia "	25	"
Chinoidine "	30	"

It is in the form of a dull brown powder, not crystalline, readily soluble with the addition of small quantities of the acid, and makes up very easily into the pilular mass. It can be furnished at little more than one-third the price of quinine. As an antiperiodic in pure uncomplicated cases of malarial disease it acts quite as efficiently as quinine in the same doses, and has indeed proved successful in many instances in which the latter has failed. My own experience in its use has been rather in diseases of exhaustion, in which I have obtained most satisfactory results from it. The testimony of Dr. L. S. Oppenheimer, of Seymour, Indiana, as detailed in a paper read before the Mitchell District Medical Society of Indiana, and published in the last number of the Cincinnati *Lancet and Clinic*, is worthy of repetition, as the district in which he practiced is one in which malarious diseases are prevalent, and the powers of quinine have been most thoroughly tested. After mentioning the fact that he had, for many years, obtained good results by adding cinchonidia to quinia, he continues: "I have found that from fifteen to twenty grains of quinquinia, administered in five-grain doses every half-hour, the last dose to be given about half an hour before the expected paroxysm, will ward off nearly every simple paroxysm; only in extremely rare cases, when the patient has acquired great tolerance of the cinchona salts, is it necessary to increase the daily quantity to be taken to twenty-four or twenty-eight grains."

"In the treatment of night-sweats due to general debility, I have found a solution of quinquinia in an excess of dilute aromatic sulphuric acid quite successful; the tonic properties of the former with the specific action of the latter forming a very desirable union. It is best to give the medicine, whenever convenient, in solution, or in pill form. If the stomach be very irritable, the following elixir will be found to be exceedingly serviceable; most children will take it without any trouble, and it does not produce nausea:—

Quinquinia,	140 grains
Citric acid,	90 grains
Oil of orange,	8 minims
Acetic acid,	30 minims
Spirit of cinnamon,	12 minims
Whisky (or alcohol),	4 ounces
Syrup,	6 ounces
Water,	6 ounces.

"Make a solution of the citric acid in two ounces of the water, with which mix the quinquinia, then add the acetic acid and dissolve; mix the oil of orange and the spirit of cinnamon with the whisky, and add to the other; then add the syrup and water, and filter. Each teaspoonful of this elixir contains about one grain of quinquinia."

"In conclusion, I would repeat that I quite agree with the general expression of physicians who have used this remedy, that it is sometimes apt to nauseate, when taken in large doses, but it does not give rise to other unpleasant phenomena of cinchonism; it *is more reliable as an antiperiodic and tonic than any of the cinchona salts.* (The italics are my own.) It has some antipyretic power, and it is not quite so bitter as the salts. In short, it answers the demand made by the profession of this country for an intelligent arrangement of the useful alkaloids of the calisaya bark, so that the tonic properties should not be sacrificed for the antipyretic, nor the antiperiodic powers sacrificed for the tonic. It approaches nearer to therapeutic perfection than the other preparations of the cinchona tree."

In five hospitals and dispensaries in the city of Chicago, careful notes have been kept of cases of intermittent fever and other malarial affections treated by this remedy, of which the following is a brief synopsis: Intermittent fever, 4; remittent fever, 5; rheumatic fever, 3; neuralgia, 3; gastric fever, 1. In all of these cases the remedy was entirely successful. It was given in doses of from four to eight grains. In twenty of the cases of intermittent there was no return of the paroxysm after the exhibition of the drug. In five, one single chill followed, and in none did they persist longer than a week.

These observations, made with such accuracy as to entitle them to respectful consideration, certainly indicate that we have in this article a valuable addition to our available materia medica. I would especially urge a trial of its virtues upon such of your readers as live in malarious localities.

BENJ. LEE, M.D.
1106 *Walnut St., Philadelphia.*

German Measles.

ED. MED. AND SURG. REPORTER:—

The presence of numerous cases of epidemic roseola or German measles in this city, or some sections of it, I should say, probably is affording many physicians an opportunity to realize that there is really such a disease. It would seem to be to not a few a total stranger. A somewhat popular practitioner, who received his diploma from our leading medical school a little less than a decade ago, on visiting a person affected with it, declared that he was suffering from some casual disorder of the blood, and on being told that it might be German measles, as a neighboring family had it, pronounced that notion absurd, because there was no disease of that kind, there being only one sort of measles.

There may be something said about this disease in the colleges of late, but I know there was nothing a very few years back; and it is only in the recent text books on practice that accounts of it are to be found. Assuredly it is a distinct affection, and one, too, which it is by no means hard to identify. It resembles both measles and scarlet fever to some extent, but altogether is very different from either. I did not sit down to write a description of it, however, so I will stop here.

T. S. S.

Philadelphia, March 19th, 1881.

Parotitis.

ED. MED. AND SURG. REPORTER:—

This, as its name signifies, is an inflammation of the parotid gland, and commonly known as mumps. In Vol. XXXV, No. 18, of the MEDICAL AND SURGICAL REPOTRER, I gave the case of Issacher McLane, who lost both parotid glands from suppuration of the surrounding areolar tissue. April 28th, 1880, nearly four years afterwards, I called at McLane's, and found Issacher suffering from mumps. The submaxillary glands were swollen and tender, and the other usual symptoms of mumps were present. The other members of the family were affected by the disease shortly afterwards—those of them who had not previously had it.

I give this to your readers to show that the loss of the parotid glands does not exempt the sufferer from mumps, and that the inflammation is only transferred or attacks other glands when these structures have been lost. We may, therefore, ask the question, Is parotitis a proper name for this disease?

J. S. WRIGHT, M.D.

Gatchelville, York Co., Pa.

NEWS AND MISCELLANY.

Report on Trichinæ.

The report on trichinæ, compiled by the late Passed Assistant Surgeon Glazier, of the Marine Hospital Service, forwarded to the Senate by ex-Secretary Sherman, in answer to a Senate resolution of December 13, 1880, is now passing through the press at the Government printing office, and will soon be ready for distribution. The work was commenced in July, 1879, and nearly a year was consumed in the collection of materials. The report contains a history of the discovery of the trichinæ, their natural history, theories of their source, the history of the disease trichinosis, statistics of epidemics, etiology, pathological anatomy, symptoms and treatment, symptoms of trichinosis in animals, a discussion of the means for the prevention of the disease, synopsis of the regulations governing the pork trade in Europe, results of the examination of European and American pork, discussion of some mistakes occasionally made in making microscopical examinations, a statement of the disease as it has occasionally appeared in the United States, and a report of the letters transmitted to the Treasury by the State Department, from United States Consuls abroad, upon the subject. The importance to the United States of having the matter thoroughly understood is shown by the letter of the Secretary of the Treasury, wherein it is stated that "the value of bacon and hams exported from the United States (during the fiscal year ended June 30, 1880) was $50,987,603, and of pork, $5,930,532, and of lard, $27,920.367—in all $84,838,502."

The sections of the report relating to the history of the discovery of the parasite, its natural history and the theories of its origin, are largely compiled from German authorities, original translations of the principal German text-books having been made by Dr. Glazier, as the American literature on this part of the subject was not extensive, the Germans having had more experience with trichinæ and with the disease trichinosis than any other nation. It is shown in the report that nearly all animals may be infected with trichinæ, but the heretofore commonly received opinion that these parasites were originally found in rats is shown to be untenable, although they may be reproduced in any animal feeding upon the flesh of other trichinosed animals, of whatsoever species, and the circle of infection is thus believed to be kept up. The practical "Question of Trichinazation has relation to the infection of man through the hog, and there is not much ground for the supposition that hogs are infected from kitchen slops, as there is nothing essentially different in them from the food eaten by the family." It is further shown that hogs kept in stalls in which trichinosed hogs have been kept will become infected, and that the only means of prevention of this disease among swine is: First, that the stalls or pens in which the animals are kept be kept scrupulously clean; second, the swine must have good, clean food, and not allowed access to diseased meat of any kind—the not uncommon practice of throwing dead poultry, rats or cats to swine shown to be a source of danger, and should be prohibited by statute; and third, as soon as any animal is suspected of disease it should be separated from the herd.

Much space is devoted in the report to the history of epidemics of trichinosis, and it is shown that trichinæ have been found in all countries where search has been made for them, but, owing to the German habit of eating raw meat, there have been more cases of trichinosis in that country than elsewhere. The results of correspondence with the professors of anatomy and demonstrators of anatomy in nearly every medical college and public institution in the United States where dissections are made, are given, and the infrequency of the disease in this country may be fairly presumed from them. These statistics cover the institutions above named, from the New England, Middle, Southern and Western States, including California. A short chapter is added as to the general utility of public abattoirs, and it is reiterated throughout the report that ordinary cooking will destroy trichinæ and render them harmless.

A New Medical College.

The public announcement of the formation of a new medical college in this city was made last week. Its creation has been matter of private conversation for some time. The title is "The Medico-Chirurgical College of Philadelphia." The prospectus says: "Feeling that there is now a demand for another medical school in our city, the founders of the Medico-Chirurgical College join the sister colleges of the regular school in the laudable work of maintaining for Philadelphia her reputation as the chief medical centre of the United States."

A novel feature is a collateral course on English Science and Literature and the elements of Latin, without additional expense to the studen

A three years' course is to be obligatory, in spite of the failure of Bellevue to sustain one.

The college building is at the corner of Broad and Market streets. The following are the officers and faculty:—

Officers—President, Geo. P. Oliver, M.D.; Secretary, Charles L. Mitchell, M.D.; Treasurer, Geo. E. Stubbs, A.M., M.D.

Faculty—Geo. P. Oliver, M.D., 936 North Fifth street, Professor of Principles and Practice of Medicine and Clinical Medicine. H. Earnest Goodman, M.D., 1427 Chestnut street, Professor of Principles of Surgery and Clinical Surgery. Geo. B. H. Swayze, M.D., 1828 Columbia avenue, Professor of Obstetrics and Gynæcology and Clinical Gynæcology. Geo. E. Stubbs, A.M., M.D., 1501 North Seventeenth street, Professor of Anatomy and Clinical Surgery. William F. Waugh, A.M., M.D., 878 North Sixth street, Professor of Materia Medica, Therapeutics and Clinical Medicine. A. S. Gerhard, A.M., M.D., 731 North Sixteenth street, Professor of Physiology and Medical Jurisprudence. Charles L. Mitchell, M.D., 839 Race street, Professor of Medical Chemistry, Toxicology and Sanitary Science. Frank O. Nagle, M.D., Demonstrator of Anatomy and Curator. Geo. B. H. Swayze, M.D., Dean.

Pigs as Drunkards.

The *Journal of Science* says, in a recent issue, that two French physicians have experimented with alcohol in pigs. Pigs were chosen for the experiment because of the close resemblance of their digestive apparatus to that of man. The pig who takes absinthe is first gay, then excitable, irritable, combative, and finally drowsy; the pig who has brandy mixed with his food is cheerful all through till he falls asleep; the rum swilling pig becomes sad and somnolent almost at once; while the pig who takes gin conducts himself in eccentric ways; grunting, squealing, tilting his head against the sty door, and rising on his hind legs as if to sniff the wind. Dr. Decaisne, describing these experiments with intoxicated swine, remarks, in the *France*, that they are none the worse for their year's tippling.

Trichinosis Cases.

Several severe cases of trichinosis have occurred in Hoboken, under the charge of Dr. Kudlich. One woman died and her husband was seriously ill. The usual cause, trichinous pork, led to the disease. Another alleged case, in New York city, was said to have been traced to foreign-made sausage. One of our western exchanges records that Mr. Charles L. Ibach, of Indianapolis, died on the 20th, after suffering for eleven weeks from trichiniasis. No doubt for every case recognized, fifty are not.

A Cremation Society.

A cremation society has been organized in New York city. The members are evidently men who are resolved to go ahead, and we are much mistaken if they will not fill a much larger place in the public eye than now seems likely. On the evening of March 24th a large meeting of the members and others was held in the Cooper Institute. A large number of army and navy officers were elected to membership, and an able lecture was delivered on the disposal of the dead, it being a strong plea for cremation.

Sale of Poisons.

Three cases of serious poisoning, by mistakes of druggists, have occurred in New Haven in two weeks' time. One resulted fatally. Similar cases are reported from different parts of the country quite frequently. It is an illustration of the carelessness with which medicines are often dispensed.

Personal.

—"Dr." Francis Tumblety, known throughout the United States and Canada as "the great Indian doctor," has come to grief in New Orleans, for picking the pocket of a Government clerk.

—An alleged "confession" by the notorious diploma vendor, Dr. Buchanan, has been published; its chief aim is clearly to drag others into the mire with himself.

—Dr. Joseph F. Edwards, of this city, has taken the editorial charge of the *American Specialist*, published by Presley Blakiston. He is already known as a medical author, and no doubt the *Specialist* will have a prosperous career under his management.

Items.

—We omitted to mention that the "Easiest Way of Housekeeping and Cooking," reviewed on page 296, is published by Fords, Howard & Hulbert, New York city.

—From recent statistics collected by M. Lunier, there are 33,225 epileptics in France. Of these only 3550 are in hospitals. He urges that were a larger number under hospital treatment, cures would be more frequent.

—Senator Bayard, of Delaware, says: "So far as my experience goes, a well-regulated system of license, whereby revenue is largely brought into the public treasury, coupled with severe penalties for illicit sale, has proved the most efficient check upon the abuse of the liquor traffic"

—Last month a banquet was given by many of the leading citizens of Bristol to the Hon. Theodore Canisius, M.D., who, after six years' residence there as United States Consul, was about to leave the city. At the conclusion of the banquet an address was presented to Dr. Canisius, signed by the Mayor of Bristol and several of its more influential inhabitants.

—Labouchere, the editor of London *Truth*, says that English physicians and English mothers are behind those of America and the south of Ireland in not vaccinating children above the ankle instead of on the arm, which is so frequently disfigured. What Labouchere does not know about medicine and surgery is (in his opinion) not worth the knowing.

—"Pig butter," or "suine," is extensively manufactured in the West, and packed and sold to the unwary purchaser as a genuine cow product. It is composed of 75 per cent. of lard, and is said to contain fatty acids injurious to the health. Trichinæ may also be present. The attention of the Philadelphia Board of Health has been called to the matter.

—The prescription below was actually sent to a Louisiana drug store to be filled, and that by a man who pretended to be a physician :—

FOR BOB SMITH'S CHILD.

℞.	Iodine.	j℥
	Castoroil,	jℌ
	Watter,	ij ℥.

Put into quart bottle and give a tablespoonfull four times adayy.

The druggist declined to fill it.

—The following resolution has been unanimously adopted by the Hale County, Alabama, Medical Society:—

Resolved, That the members of this Society establish a list of names, to be known as the "Black List," and that no physician in good standing go to see or prescribe for any one placed on said list unless he pay cash or give ample security, and that each name remain on "Black List" until removed by the physician who placed it there.

OBITUARY NOTICES.

DR. ISAAC RAY,

Well and widely known as a writer on the treatment of insane patients, died March 31st, at his residence in this city, in the 74th year of his age. He was born in Beverly, Maine, and graduated at Bowdoin College in 1827, and studied medicine with Dr. Shattuck, in Boston. He practiced for some time in Portland and Eastport, and then took charge of the insane asylum at Augusta. Subsequently he was in charge of the Butler Hospital at Providence, and came to Philadelphia in 1867, since which time he has been engaged as a consulting physician. In July, 1880, he was elected an honorary member of the Medico-Psychological Association of London, and received the diploma a few weeks since. He had been in ill health for twenty five years previous to his death. He was elected a Fellow of the College of Physicians of Philadelphia in 1868.

Dr. Ray was a voluminous writer on medical subjects, and included in his works will be found: "Conversations on Animal Economy," 1829; a treatise on the "Medical Jurisprudence of Insanity," 1838, a work termed by Mr. Cockburn, Attorney-General of England, as "perhaps the most scientific treatise that the age had produced on the subject of insanity in relation to jurisprudence;" "Homicide—Epilepsy," 1867, a review of the case of G. W. Winnemore, executed for murder at Philadelphia, August 29th, 1867. He also contributed papers to the *North American Review*, *American Quarterly Review*, *Christian Examiner*, *American Jurist*, *Law Reporter*, *Boston Medical Magazine*, *American Journal of Insanity*, and the *Atlantic Monthly*. The eleventh edition of his "Medical Jurisprudence" was published in this city in 1860.

RICHARD HENRY LEE, M.D.,

Died, March 22d, after a long illness, in the 54th year of his age, at his residence in this city. Dr. Lee was a successful physician. He was descended from one of the collateral branches of the family of Richard Henry Lee, one of the signers of the Declaration of Independence, and his father, Dr. Ralph Lee, was a well-known practitioner of Bucks county.

Dr. Lee studied medicine at the University of Pennsylvania, and located in this city, where he soon became most favorably known. He was devoted to his profession, and, though he never aspired to play a prominent part before the public as a professor or writer on medical subjects, he was recognized among the faculty as a man of solid attainments. His complaint was Bright's disease, and for some time prior to his death he had retired from active practice.

QUERIES AND REPLIES.

Dr. J. W. C., of Ala.—1. Green German Soap (Hebra), costs fifty cents per pound. 2. We will accept postage stamps for our publications, but don't prefer them.

Subscriber, Kansas.—Lemon grass is the *andropogon citratum*. We cannot find any oil from it mentioned, nor has its medical properties been defined, although it is included in some catalogues of medicinal plants.

MR. EDITOR.—I wish some of the many readers of your valuable journal would give me the best formula or recipe for disguising the intense bitter taste of sulphate of quinia in solution.

Also the best treatment for preventing the return of intermittent fever, known along the Schuylkill valley as *ague*, which in some cases returns in seven, fourteen or twenty-one days, and some still shorter periods, every few days. S. S. F.

Pennsylvania.

ED. REPORTER.—I find in your issue of March 19th an article or lecture by Prof. Pepper, on the subject of Œdema, in which he makes the following statement, "but in Bright's disease we have the upper parts of the body affected before the lower."

I would like to ask the lecturer if he lays that down as an absolute rule? D. H. WOOD, M D.

Quincy, Mich., March 2 th, 1881.

Drs. J. C. W. and G. E. S.—The formulæ are—

LIQUOR HYDRARGYRI BICHLORIDI—VAN SWIETEN'S LIQUOR.

℞.	Hydrarg. bichlor.,	gr. x	
	Ammon. mur.,	gr. x	
	Aquæ destil.,	Oj.	M.

DOSE.—3ss-3ij.

The American Medical Formulary (J. J. Reese, M.D.).

MIST. RHEI CUM GENTIANÆ.

℞.	Rhubarb,		
	Gentian,		
	Orange peel,	aa	gr. xxxvj
	Boiling water,		Oss

Macerate one hour, press, strain and add—

	Bicarb soda,		
	Sesquicarb. ammonia,	aa	gr. xcvj
	Spts. caraway,	(L Ph.)	℥ xlvij

DOSE.—1-2 tablespoonfuls.

"Neapolitan ointment" is merely an old name for mercurial ointment.

Cooley's Handbook of Compounded Medicines.